RAPTOR
WORKHOLDING PRODUCTS

CATALOG 2019

AHB
TOOLING & MACHINERY
COMPLETE METALWORKING SOLUTIONS
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RAPTOR
WORKHOLDING PRODUCTS

Raptor began with an innovative design: the original, patented dovetail fixture. Now we have products that will either work independently or together seamlessly:

Start with a Self Centering Vise.
Use the vise in two ways:
- Hold a workpiece for dovetail prep.
- Machine a complete part.

Finish with a dovetailed Pinch Block.
Use these in a variety of applications:
- Machine the sixth side of workpiece for dovetail removal.
- Secondary or final machining operations.

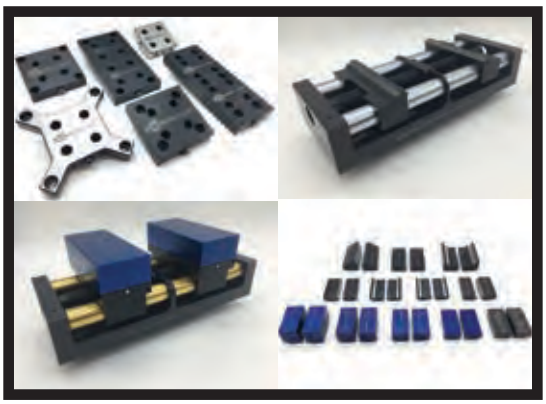
Then utilize a patented Dovetail Fixture.
- The combination of the dovetail and spring-loaded clamping system provides superior holding strength.
- The dovetail prep on the bottom of a workpiece means full access to five sides of a workpiece with little waste.

Raptor Tip
Save time! Raptor's carbide dovetail cutters complete the dovetail prep, including the flat of the dovetail edge, in a single pass!

THE BEST IN THE BUSINESS
JUST BECAME EVEN STRONGER!

TE-CO/RAPTOR Workholding have entered into a partnership with PIRANHA to bring Swiss engineered precision Self-Centering Vises and versatile high pressure anodized aluminum Coolant Lines that withstand up to 80 bar (1160 psi) of pressure to the United States!

PIRANHA-CLAMP®

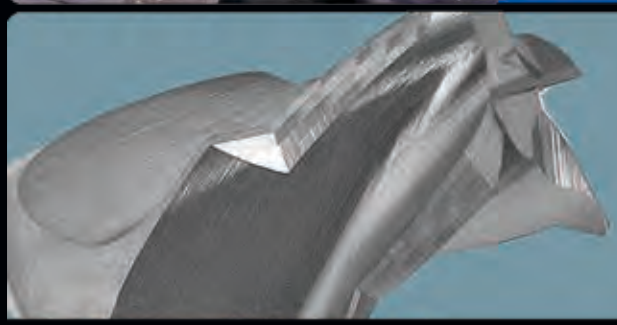


PIRANHA-COOLING LINE®

VISES

DOVETAIL FIXTURES

MULTI-FIXTURES



DOVETAIL CUTTERS & REPLACEMENT ITEMS

ADAPTERS, RISERS, CONNECTORS & EXTENDERS

PINCH BLOCKS

VISES

RWP-502

100mm Self Center Vise

- All steel construction
- Automatically positions workpiece in center of vise. Centering tolerance is +/-0.013mm (0.0005") and repeatability is 0.001".
- Jaws adjust from either end of vise.
- Jaw clamping range is 0-2.500" as shown, and 2.500"-5.620" with jaws reversed.
- Jaw insert options available for a variety of holding applications: Dovetail, Serrated, Parallels, Soft Jaws, TalonGrip™ & Stops (all sold separately).
- Jaw accessory screws included (6) FHCS

Weight	14lbs / 6.35kg	Jaws Reversed	5.62" / 142.8mm
Base Width	3.94" / 100mm	Maximum Allowed Torque	30ft/lbs / 40.7Nm
Base Length	6.49" / 165mm	Clamping Force @ Maximum Torque	4000lbs / 17792N
Bed Height	1.96" / 50mm	Centering Tolerance +/-	0.0005" / .013mm
Jaw Opening	Standard: 0-2.5" / 63.5mm		

RWP-505

150mm Self Center Vise

- All steel construction
- Automatically positions workpiece in center of vise. Centering tolerance is +/-0.013mm (0.0005") and repeatability is 0.001".
- Jaws adjust from either end of vise.
- Jaw clamping range is 0-3.870" as shown, and 4.75"-9.25" with jaws reversed.
- Jaw insert options available for a variety of holding applications: Dovetail, Serrated, Parallels, Soft Jaws, TalonGrip™ & Stops (all sold separately).
- Jaw accessory screws included (6) FHCS

Weight	50lbs / 22.7kg	Jaws Reversed	9.25" / 234.95mm
Base Width	5.91" / 150mm	Maximum Allowed Torque	75ft/lbs / 101Nm
Base Length	9.84" / 250mm	Clamping Force @ Maximum Torque	6000lbs / 26689N
Bed Height	2.95" / 75mm	Centering Tolerance +/-	0.0005" / .013mm
Jaw Opening	Standard: 0-3.88" / 98.4mm		

VISE JAW INSERTS

There are a variety of jaw inserts available to hold workpieces in place as illustrated below.

RWP-1027
Soft Jaw (Right)
Vise Compatibility RWP-502
Material 6061 Aluminum

RWP-1027-ST
Soft Jaw (Right)
Vise Compatibility RWP-502
Material 1018 Steel

RWP-1028
Soft Jaw (Left)
Vise Compatibility RWP-502
Material 6061 Aluminum

RWP-1028-ST
Soft Jaw (Left)
Vise Compatibility RWP-502
Material 1018 Steel

RWP-1527
Soft Jaw (Right)
Vise Compatibility RWP-505
Material 6061 Aluminum

RWP-1527-ST
Soft Jaw (Right)
Vise Compatibility RWP-505
Material 1018 Steel

RWP-1528
Soft Jaw (Left)
Vise Compatibility RWP-505
Material 6061 Aluminum

RWP-1528-ST
Soft Jaw (Left)
Vise Compatibility RWP-505
Material 1018 Steel

- Allows user to machine part specific profile in jaw for maximum clamping/location
- Good for secondary ops
- Dowel pins used for on/off repeatability

RWP-1050
Serrated 45˚ Dovetail Vise Compatibility RWP-502

RWP-1550
Serrated 45˚ Dovetail Vise Compatibility RWP-505

- Use as a dovetail clamp or serrated edge clamp
- Utilizes dovetail form for secure clamping and retention
- Dovetail width can be modified to fit different workpiece sizes
- Utilizes standard 45° dovetail form, dovetail can be cut with any standard 45° cutter
- Bite height” = .110”
- Use serrated edged to “penetrate soft material workpiece”
- Hardened and ground steel
- Sold individually (need 2 per vise)

RWP-1051

Standard Parallel (1/8" Ledge) Vise Compatibility RWP-502

RWP-1551

Standard Parallel (1/8" Ledge) Vise Compatibility RWP-505

- Provides precise straight edge for clamping machined workpiece
- Good for light / medium duty machining
- Rail provides maximum support while allowing clearance on bottom of workpiece
- Hardened and ground steel
- Sold individually (need 2 per vise)

RWP-1052

Thin Parallel (1/16" Ledge) Vise Compatibility RWP-502

- Provides precise straight edge for clamping machined workpiece
- Good for light / medium duty machining
- Rail provides support while allowing more clearance on bottom of workpiece
- Hardened and ground steel
- Sold individually (need 2 per vise)

RWP-1056

Straight Edge 60˚ Dovetail Vise Compatibility RWP-502

RWP-1556

Straight Edge 60˚ Dovetail Vise Compatibility RWP-505

- Utilizes dovetail for secure clamping and retention
- Dovetail width can be modified to fit various workpiece sizes
- Utilizes standard 60° dovetail form, dovetail can be cut with any standard 60° cutter
- Hardened and ground steel
- Sold individually (need 2 per vise)
- Recommended cutter: RWP-DC410C for material prep

RWP-33020

Mitee-Bite End Stop

- Locates workpiece for repeat positioning
- Fits both RWP-502 & RWP-505 vises

RWP-33050

Mitee-Bite TalonGrip™

- Low profile clamping
- Use to secure soft material workpieces
- Position flexibilty on insert slot of vise
- May be used in conjunction with end stop.
- Hardened steel
- Sold (2) per pack
- Fits both RWP-502 & RWP-505 vises

VISE ADAPTERS / RISER PLATES

The following products were designed for the RWP-502 or RWP-505 vise. There are multiple options to choose from and will mount to most rotary table/pallets.

RWP-209-V100

Emergency Adapter

The emergency adapter allows you to drill the specific mounting hole configurations necessary to connect to your machine's rotary table/pallet. Once completed then connect adapter to table/pallet and mount the vise. When mounted together the overall height is 4.471". If additional height is needed, then mount the RWP-242-V100 Riser Plate in between vise and adapter for total Z: 6.221". RWP-PLUG-208 is available upon request (sold seperately).

Material	Aluminum Plain Finish
Product Height	1.50" / 38.1 mm
Product Diameter	9.90" / 251.46mm
Vise Compatibility	RWP-502
Boss/Hole	1.000" Diameter x .30" Receiving hole

Centering plug required. RWP-PLUG-208, sold separately and may need to be modified.

RWP-222-V100

Universal Adapter

Mount directly to your machine pallet or rotary table using T-slots. When mounted together the overall height is 4.971". If additional height is needed, then mount the RWP-242-V100 Riser Plate in between vise and adapter for total Z: 6.721". RWP-PLUG-208 is available upon request (sold seperately).

Material	7075 Aluminum with Black Anodize Finish
Product Height	2.0" / 50.8mm
Product Diameter	9.875" / 250.825mm
Vise Compatibility	RWP-502
Boss/Hole	1.000" Diameter x .30" Receiving hole

Centering plug required. RWP-PLUG-208, sold separately and may need to be modified.

RWP-223-V100

Universal Adapter

Mount directly to your machine pallet or rotary table using T-slots. When mounted together the overall height is 4.971". If additional height is needed, then mount the RWP-242-V100 Riser Plate in between vise and adapter for total Z: 6.721". RWP-PLUG-208 is available upon request (sold seperately).

Material	7075 Aluminum with Black Anodize Finish
Product Height	2.0" / 50.8mm
Product Diameter	11.90" / 302.26mm
Vise Compatibility	RWP-502 & RWP-505
Boss/Hole	1.000" Diameter x .30" Receiving hole

Centering plug required. RWP-PLUG-208, sold separately and may need to be modified.

RWP-242-V100

Riser Plate

Mount directly to your machine pallet or rotary table. May also be used in a stacked application for higher Z, when mounted to either: RWP-209-V100, RWP-222-V100 or RWP-223-V100.

Material	7075 Aluminum with Black Anodize Finish
Product Height	1.75” / 44.45mm
Product Diameter	8.45” / 214.63mm
Vise Compatibility	RWP-502
Mounting Info	(4) C’Bores for ½-13 Or M12 SHCS on a 7.00” B.C.
Boss/Hole	1.000” Diameter x .30” Receiving hole

Centering plug required. RWP-PLUG-208, sold separately and may need to be modified.

RWP-251-V100

Riser Plate

Adapts RWP-502 vise to a Haas UMC750/UMC750ss, Matsuura MX520 300mm and other machines.

Material	7075 Aluminum with Black Anodize Finish
Product Height	4.50” / 114.3mm
Product Diameter	11.40” / 289.6mm
Vise Compatibility	RWP-502
Mounting Info	(8) C’Bores on a 9.92”/251.9mm for ½-13 Or M12 SHCS on a 7.00” B.C. Will fit pallets with (4) or (6) T-slots
Boss/Hole	1.968”/50mm x .75” Receiving hole

RWP-244-V100

2.25” Dovetail Connector Plate

Top View

This connector plate has been designed with a 2.25” dovetail base. Mounts directly to Raptor dovetail fixtures: RWP-006 or RWP-006SS. When mounting vise, dovetail connector plate, and dovetail fixture together, the total Z is 6.471”.

The RWP-006(SS) connect to Raptors’ standard adapters with 3.80” BC dia. interface: RWP-209 (total Z: 7.971”), RWP-222 (total Z :8.471”), RWP-223 (total Z:8.471”).

Bottom View

Material	7075 Aluminum with Black Anodize Finish
Product Dimensions	6.5”L x 4.125” W x 1.0” H 165.1mm x 104.775mm x 25.4mm
Vise Compatibility	RWP-502

A FULL ACCESS PASS.

Speed up your manufacturing by machining five full sides of the workpiece in one set-up.

Raptor's patented dovetail design quickly locks the part in place for extreme clamping strength and rigidity without wasting much material on the base.

A locating pin ensures your part is positioned accurately and, unlike other products, the spring-loaded clamp can be tightened with a simple T-handle wrench. Quick and easy.

Raptor gets out of your way so you can get the job done.

TESTED AND PROVEN.

Raptor was created by manufacturers for manufacturers.

We know that workholding can be difficult because we face the same challenges. That is why we continue to create innovative products. Raptor is a strong, flexible workholding solution that has been utilized for years by some of the world's leading manufacturers. Raptor's dovetail design has been tested by an independent laboratory for strength.

FASTER JOB SETUP.

With Raptor, you can run a wide variety of parts and eliminate the changeover time. There is no need to spend time removing and replacing custom fixtures in your machines. We simplified the process. Smaller Raptor fixtures can also be attached to larger ones, allowing you to switch to any size part as fast as you can turn a hand tool. We've made workholding easier for you.

RAPTOR IS ADAPTABLE.

Our workholding products can fit any machine and any situation. We have a variety of adapters, risers, and fixtures built to attach directly to the most popular CNC machines. Multiple Raptors can be mounted to tombstones, bridges, carousels, nests and base plates. Raptor creates new products based on our customers' valuable feedback. If you need something special, let us know.

RAPTOR IS SIMPLE.

Simply load your workpiece onto the fixture and hand-tighten the spring-loaded clamp. Unloading is just as easy.

1 - SIMPLE DOVETAIL

A simple workpiece prep creates a dovetail that locks into the Raptor spring-loaded clamp.

2 - SPRING-LOADED CLAMP

Raptor's spring-loaded clamp strongly holds the part and makes releasing easy.

3 - HAND TIGHTENED

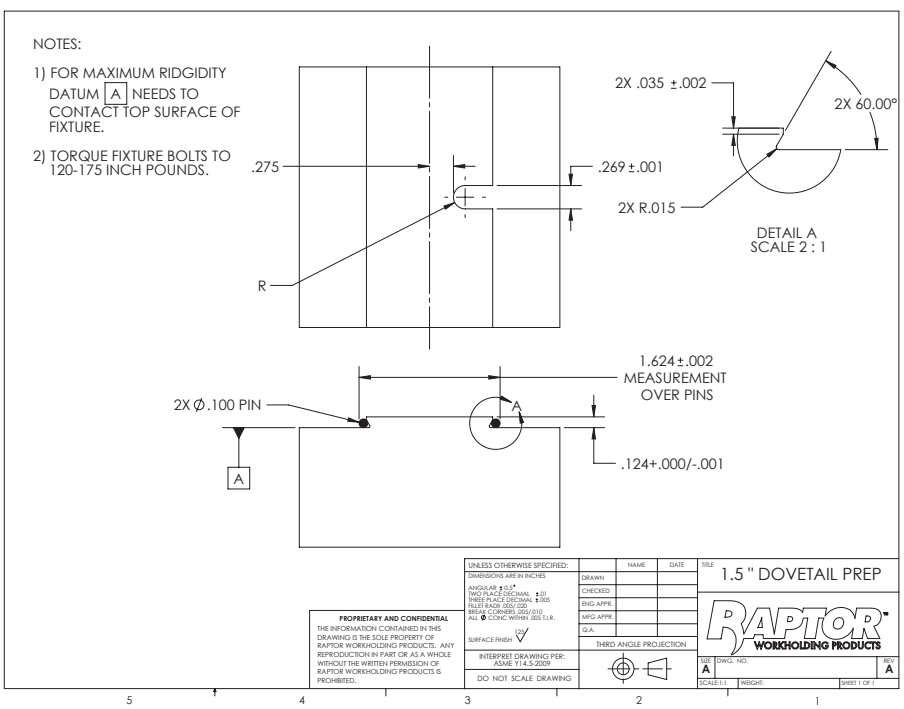
Use a T-wrench to hand-tighten the clamp and you're done. It's quick, simple and strong.

4 - STRONG BY DESIGN

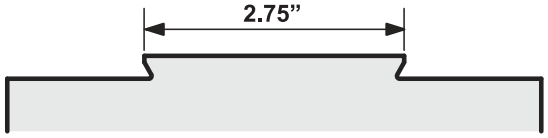
Solid, super-strong stainless-steel or lightweight aluminum ensures that Raptor will hold up to repeated use.

5 - FITS ANY MACHINE

We have adapters, risers and versions of Raptor to fit any machine you can think of. Yes, even that one.



2.75” DOVETAIL FIXTURES



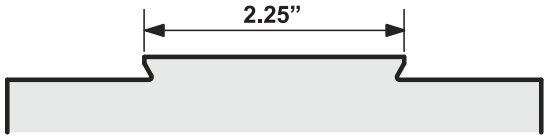
RWP-403SS-12

Stainless Steel 2.75” Dovetail Fixture

Max Workpiece Weight	225 Pounds / 102.058 kg
Max Workpiece Size	10.0”L x 8.0”W x 10.0”H Steel 254mm x 203.2mm x 254mm
Fixture Material	17-4 Stainless Steel
Number of Clamps	3 Clamps
Clamp Replacement Kit	RWP-KIT-3001SQ (2) required
Dovetail Height	0.25” / 6.35mm
Dovetail Width	2.75” / 69.85mm
Fixture Length	11.50” / 292.1mm
Fixture Width	7.50” / 190.5mm
Fixture Height	3.875” / 98.425mm

Contact us for cutter recommendation.

2.25” DOVETAIL FIXTURES



RWP-006

Aluminum 2.25” Dovetail Fixture

Max Workpiece Weight	80 Pounds / 36.287 kg
Max Workpiece Size	8.0”L x 10.0”W x 10.0”H 254mm x 203.2mm x 254mm
Fixture Material	7075-T6511 Aluminum

RWP-006SS

Stainless Steel 2.25” Dovetail Fixture

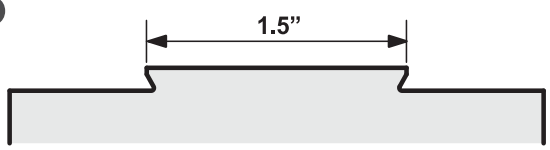
Max Workpiece Weight	168 Pounds / 76.203 kg
Max Workpiece Size	12.0” / 304.8mm Cubed
Fixture Material	17-4 Stainless Steel

Number of Clamps	2 Clamps
Clamp Replacement Kit	RWP-KIT-303SQ
Dovetail Height	0.1875” / 4.7625mm
Dovetail Width	2.25” / 57.15mm
Fixture Dimensions	5.950”L x 3.957”W x 3.957”H 151.13mm x 100.5078 mm x 63.5mm
Bolt Circle Diameter	3.800” Raptor Interface
Recommended Cutter	RWP-DC410C

Raptor Interface=(4) C’Bores on a 3.800” B.C. for ½-13 or M12 SHCS with a 1.250” x .250 Boss.

1.5” DOVETAIL FIXTURES

The following fixtures are for parts using a dovetail width of 1.5 inches. These dovetail fixtures are available in multiple configurations constructed of aluminum or stainless steel.



Raptor Interface=(4) C’Bores on a 3.800” B.C.
for ½-13 or M12 SHCS with a 1.250” x .250 Boss

RWP-001

Aluminum 1.5” Dovetail Fixture

Max Workpiece Weight	30 Pounds / 13.607 kg
Max Workpiece Size	6.75” / 171.45mm Cubed
Number of Clamps	2 Clamps
Clamp Replacement Kit	RWP-KIT-301SQ
Dovetail Height	0.125” / 3.175mm
Dovetail Width	1.5” / 38.1mm
Fixture Diameter	4.970” / 126.238mm
Fixture Height	3.0” / 76.2mm
Bolt Circle Diameter	3.800” Raptor Interface

Fixture Material 7075-T6511 Aluminum

RWP-001SS

Stainless Steel 1.5” Dovetail Fixture

Fixture Material 17-4 Stainless Steel

RWP-004

Aluminum 1.5” Dovetail Fixture

This fixture is designed to fit to the Mori Seiki MNV3000 and Matsuura 330X (Metric pallet).
It can also be utilized in other machines when connected with an adapter or riser.

Max Workpiece Weight	30 Pounds / 13.607 kg
Max Workpiece Size	6.75” / 171.45mm Cubed
Fixture Material	7075-T6511 Aluminum
Number of Clamps	2 Clamps
Clamp Replacement Kit	RWP-KIT-301SQ
Dovetail Height	0.125” / 3.175mm
Dovetail Width	1.5” / 38.1mm
Fixture Diameter	4.970” / 126.238mm
Fixture Height	2.0” / 50.8mm
Bolt Circle Diameter	3.740” for ½-13 or M12 SHCS
Boss/Hole	1.18” Diameter x .250” Boss

RWP-013

Aluminum 1.5” Dovetail Fixture

Max Workpiece Weight	30 Pounds / 13.607 kg
Max Workpiece Size	6.75” / 171.45mm Cubed
Number of Clamps	2 Clamps
Clamp Replacement Kit	RWP-KIT-301SQ
Dovetail Height	0.125” / 3.175mm
Dovetail Width	1.5” / 38.1mm
Fixture Diameter	4.970” / 126.238mm
Fixture Height	2.0” / 50.8mm
Bolt Circle Diameter	3.800” Raptor Interface

Fixture Material 7075-T6511 Aluminum

RWP-013SS

Stainless Steel 1.5” Dovetail Fixture

Fixture Material 17-4 Stainless Steel

RWP-026

Aluminum 1.5” Dovetail Fixture: 4” Diameter Bolt Circle

Made for tombstones with a 2.0” x 2.0” hole pattern or 4.0 bolt circle - without a boss or plug.
This fixture will not mount to Raptors’ adapters or risers.

Max Workpiece Weight	30 Pounds / 13.607 kg
Max Workpiece Size	6.75” / 171.45mm Cubed
Fixture Material	7075-T6511 Aluminum
Number of Clamps	2
Clamp Replacement Kit	RWP-KIT-301SQ
Dovetail Height	0.125” / 3.175mm
Dovetail Width	1.5” / 38.1mm
Bolt Circle Diameter	4.000”
Fixture Diameter	4.970” / 126.238mm
Fixture Height	3.0” / 76.2mm
Boss Hole	None

RWP-027

Aluminum 1.5” Dovetail Fixture

This fixture is great for small rotary tables and lathes when used with a sub-plate. May also be used for the Yukiawa TNT100L when mounted to the RWP-241 adapter plate.

Max Workpiece Weight	20 Pounds / 9.071 kg
Max Workpiece Size	6.0” / 152.4mm Cubed
Fixture Material	7075-T6511 Aluminum
Number of Clamps	2
Clamp Replacement Kit	RWP-KIT-301SQ
Dovetail Height	0.125” / 3.175mm
Dovetail Width	1.5” / 38.1mm
Bolt Circle Diameter	2.362” / 60mm B.C. for 5/16 or M8 SHCS
Fixture Diameter	3.0” / 76.2mm
Fixture Height	2.0” / 50.8mm
Boss Hole	1.000” Diameter x .30” Receiving hole

Centering plug required. RWP-PLUG-208, sold separately and may need to be modified.

RWP-036SS

Stainless Steel 1.5” Dovetail Fixture

Mount directly to the KME 135mm pallet used in the following KME products:

5 Axis Tombstones:
KME-TS300-2.0 300mm
KME-TS400-4.0 400mm
KME-TS500-4.0 500mm

5 Axis Trunnions:
KME-TR100
KME-TR200
KME-TR300

Fixture Material	17-4 Stainless Steel
Number of Clamps	2
Clamp Replacement Kit	RWP-KIT-301SQ
Dovetail Height	0.125” / 3.175mm
Dovetail Width	1.5” / 38.1mm
Fixture Diameter	5.315” / 135.001 mm
Fixture Height	2.0” / 50.8mm
Bolt Circle Diameter	3.937”

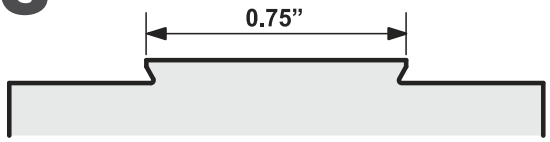
RWP-401-11

Aluminum 11” Rail with 1.5” Dovetail

Max Workpiece Weight	140 Pounds / 63.502 kg
Max Workpiece Size	17.0”L x 7.0”W x 12.0”H / 431.8mm x 177.8mm x 304.8mm
Fixture Material	7075-T6511 Aluminum
Number of Clamps	6
Clamp Replacement Kit	RWP-KIT-301SQ (3) required
Dovetail Height	0.125” / 3.175mm
Dovetail Width	1.5” / 38.1mm
Fixture Length	11.0” / 279.4mm
Fixture Width	4.40” / 111.76mm
Fixture Height	3.0” / 76.2mm

0.75” DOVETAIL FIXTURES

The following fixtures are for parts using a dovetail width of 0.75 inches. These dovetail fixtures are available in multiple configurations constructed of aluminum or stainless steel.



Raptor Interface=(4) C’Bores on a 3.800” B.C.
for ½-13 or M12 SHCS with a 1.250” x .250 Boss

RWP-002

0.75” Dovetail Fixture

Number of Clamps	2 Clamps
Clamp Replacement Kit	RWP-KIT-302SQ
Dovetail Height	0.125” / 3.175mm
Dovetail Width	0.75” / 19.05mm
Fixture Diameter	4.970” / 126.238mm
Fixture Height	3.0” / 76.2mm
Bolt Circle Diameter	3.800” Raptor Interface

Max Workpiece Weight	18 Pounds / 8.164 kg
Max Workpiece Size	5.75” / 146.05mm Cubed
Fixture Material	7075-T6511 Aluminum

RWP-002SS

0.75” Dovetail Fixture

Max Workpiece Weight	25 Pounds / 11.339 kg
Max Workpiece Size	6.375” / 161.925mm Cubed
Fixture Material	17-4 Stainless Steel

RWP-003

Aluminum 5C Collet Closer 0.75” Dovetail Fixture

Max Workpiece Weight	3 Pounds / 1.360 kg
Max Workpiece Size	3.0” / 76.2mm Cubed
Fixture Material	7075-T6511 Aluminum
Number of Clamps	1 Clamp
Clamp Replacement Kit	RWP-KIT-302SQ
Dovetail Height	0.125” / 3.175mm
Dovetail Width	0.75” / 19.05mm
Fixture Height	1.50” / 38.1mm
Fixture Inner Diameter	1.125” / 28.575mm
Fixture Outer Diameter	2.230” / 56.642mm

RWP-007SS

Stainless Steel 0.75” Dovetail Fixture

Connects directly to System 3R 54mm pallets:
MacroStd: 3R-651.7E-S / 3R-651.7E-XS and MacroHP: 3R-651.7E.P,
reducing downtime by switching to an alternate pallet in seconds.

Max Workpiece Weight	7 Pounds / 3.175 kg
Max Workpiece Size	3.75” / 95.25mm Cubed
Fixture Material	17-4 Stainless Steel
Number of Clamps	1 Clamp
Clamp Replacement Kit	RWP-KIT-302SQ
Dovetail Height	0.125” / 3.175mm
Dovetail Width	0.75” / 19.05mm
Fixture Dimensions	2.070”L x 2.070”W x 2.125”H 52.578mm x 52.578mm x 53.975mm

RWP-011SS

Stainless Steel 0.75” Dovetail Fixture with 0.75” Dovetail Bottom

Connects directly to compatible 0.75” dovetail fixtures allowing quick machining of smaller parts without removing the primary fixtures.

Max Workpiece Weight	7 Pounds / 3.175 kg
Max Workpiece Size	3.75” / 95.25mm Cubed
Fixture Material	17-4 Stainless Steel
Number of Clamps	1 Clamp
Clamp Replacement Kit	RWP-KIT-302SQ
Dovetail Height	0.125” / 3.175mm
Dovetail Width	0.75” / 19.05mm
Fixture Dimensions	2.070”L x 2.070”W x 2.001”H 52.578mm x 52.578mm x 50.825mm

RWP-012SS

Stainless Steel 0.75” Dovetail Fixture with 1.5” Dovetail Bottom

Connects directly to compatible 1.5” dovetail fixtures allowing quick machining of smaller parts without removing the primary fixtures.

Max Workpiece Weight	7 Pounds / 3.175 kg
Max Workpiece Size	3.75” / 95.25mm Cubed
Fixture Material	17-4 Stainless Steel
Number of Clamps	1 Clamp
Clamp Replacement Kit	RWP-KIT-302SQ
Dovetail Height	0.125” / 3.175mm
Dovetail Width	0.75” / 19.05mm
Fixture Dimensions	2.070”L x 2.070”W x 2.001”H 52.578mm x 52.578mm x 50.825mm

RWP-015

Aluminum 0.75” Dovetail Fixture

This fixture is designed to connect directly to the Haas TR110 and TRT-100 machines. It can also be utilized in other machines when connected with an adapter riser.

Max Workpiece Weight	18 Pounds / 8.164 kg
Max Workpiece Size	5.75” / 146.05mm Cubed
Fixture Material	7075-T6511 Aluminum
Number of Clamps	2 Clamps
Clamp Replacement Kit	RWP-KIT-302SQ
Dovetail Height	0.125” / 3.175mm
Dovetail Width	0.75” / 19.05mm
Fixture Diameter	4.330” / 109.982mm
Fixture Height	2.0” / 50.8mm
Bolt Circle Diameter	3.267” for (6) 5/16 or M8 SHCS
Boss/Hole	.4992” Diameter x .19” Boss

RWP-023

Aluminum 0.75” Dovetail Fixture: 4” diameter bolt circle

Made for Tombstones with a 2.0” X 2.0” Hole Pattern or 4.0 Bolt Circle - without a boss or plug. This fixture will not mount to Raptors’ adapters or risers.

Max Workpiece Weight	18 Pounds / 8.164 kg
Max Workpiece Size	5.75” / 146.05mm Cubed
Fixture Material	7075-T6511 Aluminum
Number of Clamps	2
Clamp Replacement Kit	RWP-KIT-302SQ
Dovetail Height	0.125” / 3.175mm
Dovetail Width	0.75” / 19.05mm
Fixture Diameter	4.970” / 126.238mm
Fixture Height	3.0” / 76.2mm
Bolt Circle Diameter	4.0”
Boss/Hole	None

RWP-024

Aluminum 0.75” Dovetail Fixture

Designed for modular applications. Multiple RWP-024 fixtures can be placed in-line to hold long parts. Multi-fixure options: RWP-024-2XR, RWP-024-3XR, RWP-024-4XR & RWP-024-6XC

Max Workpiece Weight	12.5 Pounds / 5.669 kg
Max Workpiece Size	4.0” / 101.6mm Cubed
Number of Clamps	1
Clamp Replacement Kit	RWP-KIT-302SQ
Dovetail Height	0.125” / 3.175mm
Dovetail Width	0.75” / 19.05mm
Fixture Dimensions	2.0”L x 2.0”W x 1.5”H 50.8mm x 50.8mm x 38.1mm

Fixture Material 7075-T6511 Aluminum

RWP-024SS

Stainless Steel 0.75” Dovetail Fixture

Fixture Material 17-4 Stainless Steel
*EDM Screw Kits Available

RWP-025

Aluminum 6” Rail, with 0.75” Dovetail and 1.5” Dovetail Bottom

Designed for quick-change applications machining long and skinny parts. Connects to compatible 1.5” dovetail fixtures.

Max Workpiece Weight	12.5 Pounds / 5.669 kg
Max Workpiece Size	8.0”L x 4.0”W x 4.0”H 203.2mm x 101.6mm x 101.6mm
Fixture Material	7075-T6511 Aluminum
Number of Clamps	3
Clamp Replacement Kit	RWP-KIT-302SQ (2) required
Dovetail Height	0.125” / 3.175mm
Dovetail Width	0.75” / 19.05mm
Fixture Dimensions	6.0”L x 2.0”W x 1.5”H 152.4mm x 50.8mm x 38.1mm

RWP-030SS

Stainless Steel 0.75” Dovetail Fixture

Max Workpiece Weight	40 Pounds / 18.143 kg
Max Workpiece Size	7.5” / 190.5 Cubed
Fixture Material	17-4 Stainless Steel
Number of Clamps	3
Clamp Replacement Kit	RWP-KIT-302SQ (2) required
Dovetail Height	0.125” / 3.175mm
Dovetail Width	0.75” / 19.05mm
Fixture Diameter	4.970” / 126.238mm
Fixture Height	3.0” / 76.2mm
Bolt Circle Diameter	3.800” Raptor Interface

RWP-034SS

Stainless Steel 0.75” Dovetail Fixture

This fixture is designed to connect directly to the Makino A51NX-5XU. It can also be utilized in other machines when connected with an adapter or riser.

Max Workpiece Weight	40 Pounds / 18.143 kg
Max Workpiece Size	7.5” / 190.5 Cubed
Fixture Material	17-4 Stainless Steel
Number of Clamps	3
Clamp Replacement Kit	RWP-KIT-302SQ (2) required
Dovetail Height	0.125” / 3.175mm
Dovetail Width	0.75” / 19.05mm
Bolt Circle Diameter	3.0”
Fixture Dimensions	5.0”L x 3.90”W x 2.0”H 127mm x 99.06mm x 50.8mm
Boss/Hole	2.180” Diameter x .07” Boss

RWP-038SS

Stainless Steel 0.75” Dovetail Fixture

This fixture is designed to connect directly to either the HAAS TRT100 Compact Dual Axis Rotary Table or TR110 for milling applications. It can also be utilized in other machines when connected with an adapter or riser.

Max Workpiece Weight	TRT100: 4 Lbs / TR100: 12 Lbs
Max Workpiece Size	5” / 127 Cubed
Fixture Material	17-4 Stainless Steel
Number of Clamps	2
Clamp Replacement Kit	RWP-KIT-302SQ
Dovetail Height	0.125” / 3.175mm
Dovetail Width	0.75” / 19.05mm
Bolt Circle Diameter	3.267”
Fixture Diameter	4.330” / 109.982mm
Fixture Height	1.3” / 33.02mm
Boss/Hole	.4992” Diameter x .19” Boss

RWP-405

Aluminum 8” Rail with 0.75” Dovetail

Max Workpiece Weight	65 Pounds / 29.483 kg
Max Workpiece Size	4.0”L x 14.0”W x 4.0”H Steel / 101.6mm x 355.6mm x 101.6mm
Fixture Material	7075-T6511 Aluminum
Number of Clamps	4
Clamp Replacement Kit	RWP-KIT-302SQ (2) required
Dovetail Height	0.125” / 3.175mm
Dovetail Width	0.75” / 19.05mm
Fixture Dimensions	8.0”L x 3.8”W x 3.0”H 203.20mm x 96.52mm x 76.2mm

0.50” DOVETAIL FIXTURES

The following fixtures are for parts using a dovetail width of 0.50 inches. These dovetail fixtures are available in multiple configurations constructed of aluminum or stainless steel.

Raptor Interface=(4) C’Bores on a 3.800” B.C.
for ½-13 or M12 SHCS with a 1.250” x .250 Boss

RWP-017SS

Stainless Steel 0.50” Dovetail Fixture

Connects directly to System 3R 54mm pallets:
MacroStd: 3R-651.7E-S / 3R-651.7E-XS and MacroHP: 3R-651.7E.P,
reducing downtime by switching to an alternate pallet in seconds.

Max Workpiece Weight	6 Pounds / 2.721 kg
Max Workpiece Size	3.25”/ 82.55 mm Cubed
Fixture Material	17-4 Stainless Steel
Number of Clamps	1 Clamp
Clamp Replacement Kit	RWP-KIT-306SQ (2) required
Dovetail Height	0.125” / 3.175mm
Dovetail Width	0.50” / 12.7mm
Fixture Dimensions	2.070”L x 2.070”W x 2.125”H 52.578mm x 52.578mm x 53.975mm

RWP-018

Aluminum 0.50” Dovetail Fixture

Number of Clamps	2 Clamps
Clamp Replacement Kit	RWP-KIT-306SQ (2) required
Dovetail Height	0.125” / 3.175mm
Dovetail Width	0.50” / 12.7mm
Fixture Diameter	4.970” / 126.238mm
Fixture Height	3.0” / 76.2mm
Bolt Circle Diameter	3.800” for (4) ½” or M12 SHCS
Boss/Hole	1.00” Diameter x .30 Receiiving hole

Max Workpiece Weight	10 Pounds / 4.535 kg
Max Workpiece Size	4.75” / 120.65mm Cubed
Fixture Material	7075-T6511 Aluminum

Raptor’s plug RWP-PLUG-208, sold separately.

RWP-018SS

Stainless Steel 0.50” Dovetail Fixture

Max Workpiece Weight	12 Pounds / 5.443 kg
Max Workpiece Size	5.0” / 127mm Cube
Fixture Material	17-4 Stainless Steel

Raptor’s plug RWP-PLUG-208SS, sold separately

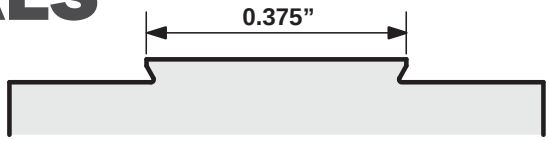
RWP-022SS

Stainless Steel 0.50” Dovetail Fixture with 1.5” Dovetail Bottom

Connects to an RWP-001(SS), RWP-004, RWP-013(SS) or RWP-026.

Max Workpiece Weight	6 Pounds / 2.721 kg
Max Workpiece Size	3.25”/ 82.55 mm Cubed
Fixture Material	17-4 Stainless Steel
Number of Clamps	1 Clamp
Clamp Replacement Kit	RWP-KIT-306SQ (2) required
Dovetail Height	0.125” / 3.175mm
Dovetail Width	0.50” / 12.7mm
Fixture Dimensions	2.070”L x 2.070”W x 2.0”H 52.578mm x 52.578mm x 50.8mm

0.375” DOVETAIL FIXTURES



RWP-019SS

Stainless Steel 0.375” Dovetail Fixture

Fixture Material	17-4 Stainless Steel
Clamp Replacement Kit	RWP-KIT-305SQ
Dovetail Height	0.125” / 3.175mm
Dovetail Width	0.375” / 9.525mm
Fixture Height	1.25” / 31.75mm
Max Workpiece Weight	2 Pounds / 0.907 kg
Max Workpiece Size	2.50” / 63.5mm Cubed
Number of Clamps	1 Clamp
Fixture Length	2.5” / 63.5mm

RWP-042SS

Stainless Steel 0.375” Dovetail Fixture

Max Workpiece Size	4.0”L x 2.50”W x 2.50”H 101.6mm x 63.5mm x 63.5mm
Number of Clamps	2 Clamps
Fixture Length	3.75” / 95.25mm

RWP-213SS

Stainless Steel 0.75” Adapter for RWP-019SS only

Material	17-4 Stainless Steel
Height	0.5” / 12.7mm
Adapter Length	2.5” / 63.5mm
Fixture Compatibility	RWP-002(SS), RWP-015, RWP-023, RWP-024, RWP-030SS

RWP-214SS

Stainless Steel 1.5” Adapter for RWP-019SS only

Fixture Compatibility	RWP-001(SS), RWP-004, RWP-013(SS), RWP-026

RWP-248SS

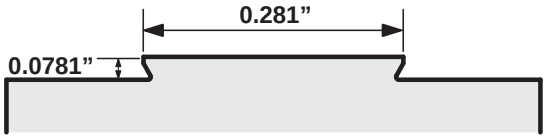
Stainless Steel 0.75” Adapter for RWP-042SS only

Material	17-4 Stainless Steel
Height	0.5” / 12.7mm
Adapter Length	3.75” / 95.25mm

RWP-249SS

Stainless Steel 1.5” Adapter for RWP-042SS only

0.281” x 0.0781” DOVETAIL FIXTURES



RWP-031SS

Stainless Steel 0.281” Width x 0.0781” Height Dovetail Fixture with .75” Dovetail Bottom

Compatible fixtures: RWP-002, RWP-002SS, RWP-015, RWP-023, RWP-024 and RWP-030SS.

Max Workpiece Weight	0.284 Pounds / 0.128 kg
Max Workpiece Size	1.25” / 31.75mm Cubed
Fixture Material	17-4 Stainless Steel
Number of Clamps	1 Clamp
Clamp Replacement Kit	RWP-KIT-307SQ
Dovetail Height	0.0781” / 19.8374mm
Dovetail Width	0.281” / 7.137mm
Fixture Height	1.438” / 36.5252mm
Recommended Cutter	RWP-DC409C

This fixture replaces the discontinued RWP-010SS.

RWP-032SS

Stainless Steel 0.281” Width x 0.0781” Height Dovetail Fixture

Connects to your machine using the 4 mounting holes.

Max Workpiece Weight	0.284 Pounds / 0.128 kg
Max Workpiece Size	1.25” / 31.75mm Cubed
Fixture Material	17-4 Stainless Steel
Number of Clamps	1 Clamp
Clamp Replacement Kit	RWP-KIT-307SQ
Dovetail Height	0.0781” / 19.8374mm
Dovetail Width	0.281” / 7.137mm
Fixture Height	1.563” / 39.700mm
Recommended Cutter	RWP-DC409C

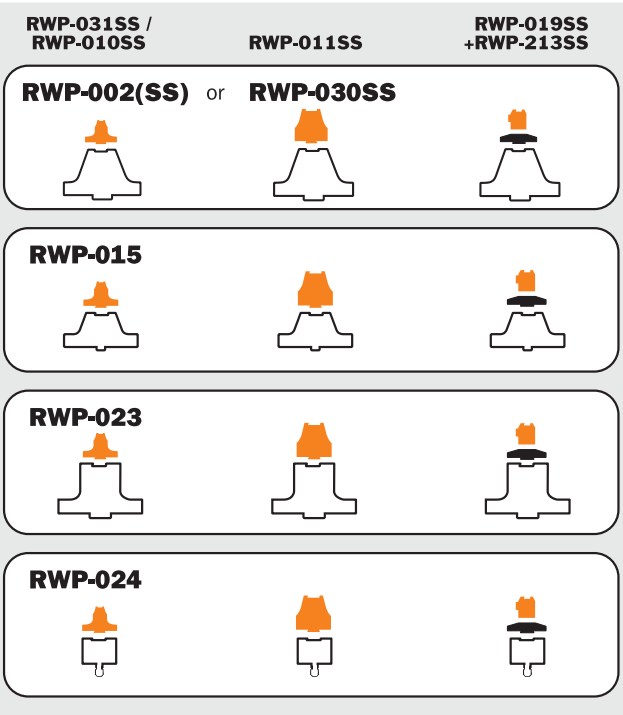
This fixture replaces the discontinued RWP-009SS.

MODULAR FIXTURE COMPATABILITY

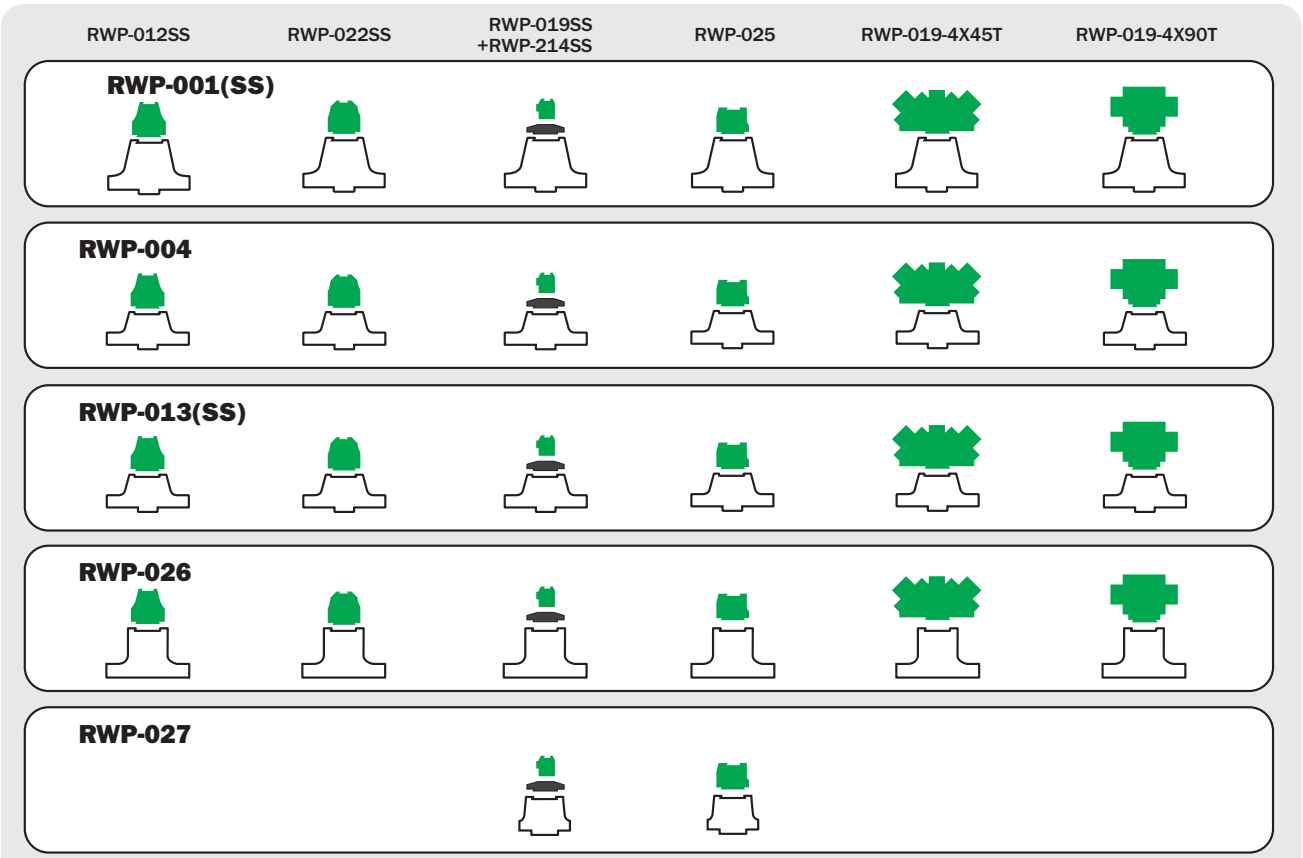
The parts you machine come in different shapes and sizes, so we designed Raptor products with this in mind, to be versatile. To machine larger parts use a standard dovetail fixture. For smaller parts, mount a smaller dovetail fixture on top of a standard, as shown.

It's that easy. Spend time making parts, not figuring out how to hold them.

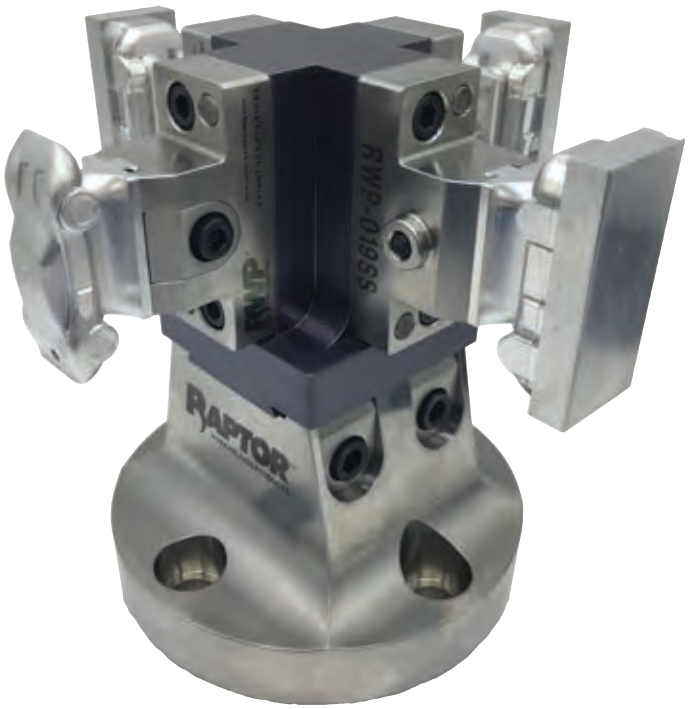
0.75" MODULAR CONFIGURATIONS



1.50" MODULAR CONFIGURATIONS



RAPTOR IS FAST.



Raptor multi-fixtures provide a platform to attach multiple Raptor dovetail fixtures. Now you can manufacture longer parts or program your 5-axis to machine multiple parts in one load.

Some Raptor multi-fixtures can attach to the top of other Raptor fixtures or adapters for quick and easy change-out. Load up the next multi-fixture with your workpieces while the other one is cycling. Changeover time is reduced and the productivity of your machine is drastically increased.

RWP-003-4X

Aluminum 0.75” Dovetail Fixture - The Pyramid system holds 4 RWP-003 on a single base

This Raptor Pyramid utilizes four included RWP-003 0.75” dovetail fixtures. This is designed specifically for five-axis machining applications and allows you to hold four workpieces on a single base.

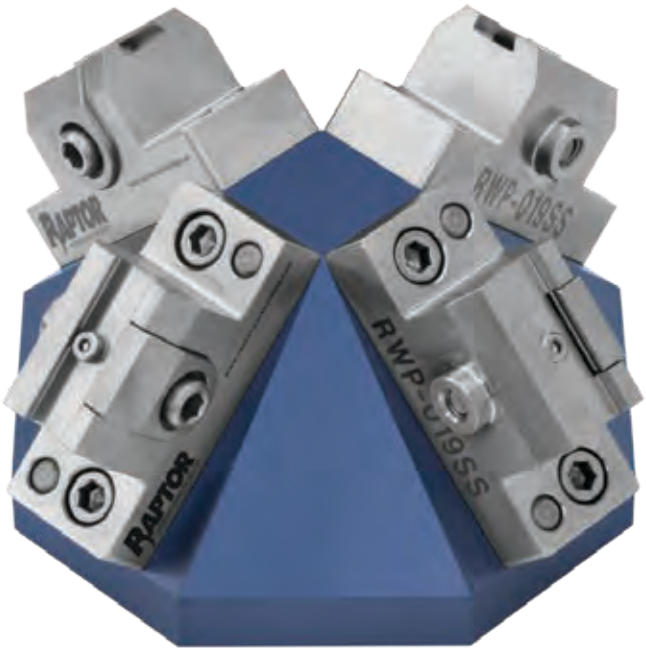
The RWP-003-4X Raptor Pyramind will mount to any of our standard adapters and risers.

Max Workpiece Weight	3 Pounds / 1.360 kg Each
Max Workpiece Size	3.0” / 76.2mm Cubed Each
Fixture Material	7075-T6511 Aluminum
Number of Clamps	4 Clamps
Clamp Replacement Kit	RWP-KIT-302SQ (2) required
Dovetail Height	0.125” / 3.175mm
Dovetail Width	0.75” / 19.05mm
Each Fixture Height	1.50” / 38.1mm
Total Product Height	3.25” / 82.55mm

Bolt Circle Diameter	3.800” / 96.52mm Raptor Interface
Boss / Plug	1.250” Dia. x 0.25” / 31.75mm x 6.35mm

RWP-019-4X45T

Stainless Steel 0.375” Dovetail Fixture - The pyramid system holds 4 RWP-019SS on a single base



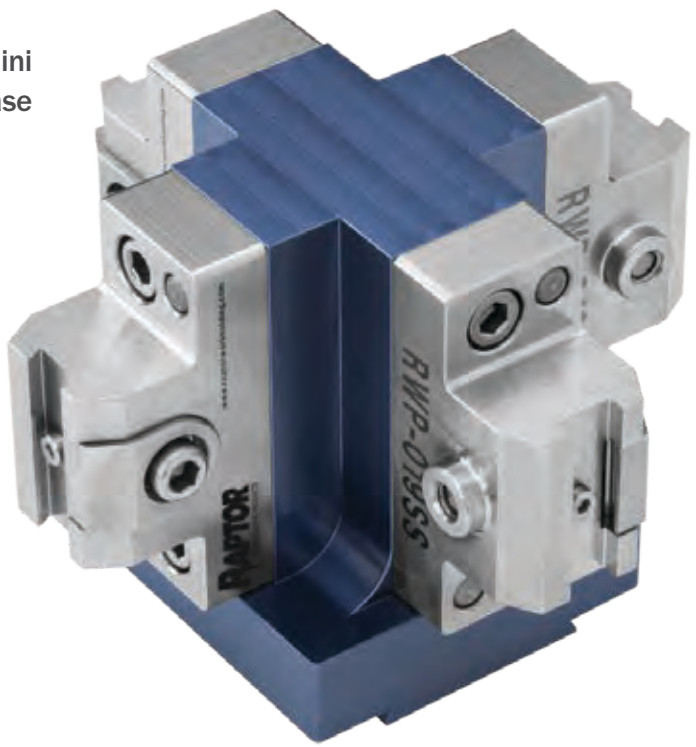
This Raptor Pyramid utilizes four included RWP-019SS 0.375” dovetail fixtures mounted at a 45 degree angle. This Raptor Pyramid has a 1.5” dovetail bottom and attaches to the top of other Raptor fixtures for quick and easy change-out. Load up the next pyramid with your workpieces while the other one is cycling. Changeover time is reduced and the productivity of your machine is drastically increased.

The RWP-019-4X45T Raptor mini tombstone will mount the any fixture with a 1.5” dovetail.

Max Workpiece Weight	2 Pounds / 0.907 kg Each
Max Workpiece Size	2.50” / 63.5mm Cubed Each
Fixture Material	17-4 Stainless Steel Fixtures Aluminum Base
Number of Clamps	4 Clamps
Clamp Replacement Kit	RWP-KIT-305SQ (2) required
Dovetail Height	0.125” / 3.175mm
Dovetail Width	0.375” / 9.525mm
Each Fixture Height	1.25” / 31.75mm
Total Product Height	2.69” / 68.326mm

RWP-019-4X90T

Stainless Steel 0.375” Dovetail Fixture - The Mini Tombstone system holds 4 RWP-019SS on a single base



This Raptor Mini Tombstone utilizes four included RWP-019SS 0.375” dovetail fixtures mounted at a 90 degree angle. This Raptor Mini Tombstone has a 1.5” dovetail bottom and attaches to the top of other Raptor fixtures for quick and easy change-out. Load up the next Mini Tombstone with your workpieces while the other one is cycling. Changeover time is reduced and the productivity of your machine is drastically increased.

The RWP-019-4X90T Raptor mini tombstone will mount the any fixture with a 1.5” dovetail.

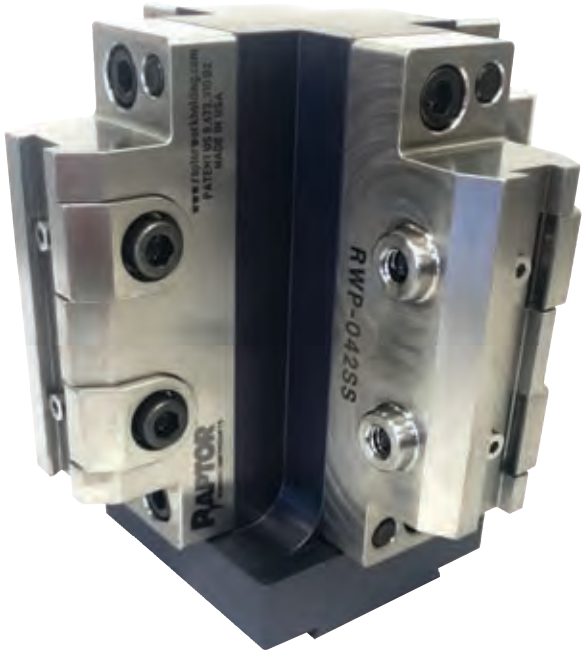
Max Workpiece Weight	2 Pounds / 0.907 kg Each
Max Workpiece Size	2.50” / 63.5mm Cubed Each
Fixture Material	17-4 Stainless Steel Fixtures Aluminum Base
Number of Clamps	4 Clamps
Clamp Replacement Kit	RWP-KIT-305SQ (2) required
Dovetail Height	0.125” / 3.175mm
Dovetail Width	0.375” / 9.525mm
Each Fixture Height	1.25” / 31.75mm
Total Product Height	3.13” / 79.502mm

RWP-042-4X90T

Stainless Steel 0.375” Dovetail Fixture - The Mini Tombstone system holds 4 RWP-042SS on a single base

This Raptor Mini Tombstone utilizes four included RWP-042SS 0.375” dovetail fixtures mounted at a 90 degree angle. This Raptor Mini Tombstone has a 1.5” dovetail bottom and attaches to the top of other Raptor fixtures for quick and easy change-out. Load up the next Mini Tombstone with your workpieces while the other one is cycling. Changeover time is reduced and the productivity of your machine is drastically increased.

The RWP-042-4X90T Raptor mini tombstone will mount the any fixture with a 1.5” dovetail.



Max Workpiece Weight	7 Pounds / 3.47 kg Each
Max Workpiece Size	4.0” L x 2.50” W x 2.50” H
Fixture Material	17-4 Stainless Steel Fixtures Aluminum Base
Number of Clamps	4 Clamps
Clamp Replacement Kit	RWP-KIT-305SQ (4) required
Dovetail Height	0.125” / 3.175mm
Dovetail Width	0.375” / 9.525mm
Each Fixture Height	1.25” / 31.75mm
Total Product Height	4.38” / 111.252mm

RWP-024-2XR

Aluminum 0.75” Dovetail Fixture - In-Line bridge system holds 2 RWP-024 on a single base

The RWP-024-2XR is a 0.75” dovetail bridge system for milling applications. This product is designed for modular applications: utilizing two RWP-024 0.75” fixtures in-line to hold longer parts.

Fixture Material	7075-T6511 Aluminum
Number of Clamps	2 Clamps
Clamp Replacement Kit	RWP-KIT-302SQ
Dovetail Height	0.125” / 3.175mm
Dovetail Width	0.75” / 19.05mm
Fixture Height	2.875” / 73.025mm
Base Length	7.0” / 177.8mm

	1 Workpiece (Total)	2 Workpieces (Each)
Max Workpiece Weight	16 Pounds / 7.257 kg	8 Pounds / 3.628 kg
Max Workpiece Size	8.5”L x 4.0”W x 4.0”H 215.9mm x 101.6mm x 101.6mm	4.0” / 101.6mm Cubed

RWP-024-3XR

Aluminum 0.75” Dovetail Fixture - In-Line bridge system holds 3 RWP-024 on a single base

The RWP-024-3XR is a 0.75” dovetail bridge system for milling applications. This product is designed for modular applications: utilizing three RWP-024 0.75” fixtures in-line to hold longer parts.

Fixture Material	7075-T6511 Aluminum
Number of Clamps	3 Clamps
Clamp Replacement Kit	RWP-KIT-302SQ (2) required
Dovetail Height	0.125” / 3.175mm
Dovetail Width	0.75” / 19.05mm
Fixture Height	2.875” / 73.025mm
Base Length	10.0” / 254mm

	1 Workpiece (Total)	3 Workpieces (Each)
Max Workpiece Weight	24 Pounds / 10.886 kg	8 Pounds / 3.628 kg
Max Workpiece Size	12.5”L x 4.0”W x 4.0”H 317.5mm x 101.6mm x 101.6mm	4.0” / 101.6mm Cubed

RWP-024-4XR

Aluminum 0.75” Dovetail Fixture - In-Line bridge system holds 4 RWP-024 on a single base

The RWP-024-4XR is a 0.75” dovetail bridge system for milling applications. This product is designed for modular applications: utilizing four RWP-024 0.75” fixtures in-line to hold longer parts.

Fixture Material	7075-T6511 Aluminum
Number of Clamps	4 Clamps
Clamp Replacement Kit	RWP-KIT-302SQ (2) required
Dovetail Height	0.125” / 3.175mm
Dovetail Width	0.75” / 19.05mm
Fixture Height	2.875” / 73.025mm
Base Length	13.0” / 330.2mm

	1 Workpiece (Total)	4 Workpieces (Each)
Max Workpiece Weight	32 Pounds / 14.514 kg	8 Pounds / 3.628 kg
Max Workpiece Size	16.5”L x 4.0”W x 4.0”H 419.1mm x 101.6mm x 101.6mm	4.0” / 101.6mm Cubed

RWP-024-6XC

Aluminum 0.75” Dovetail Fixture - 6 Fixture Carousel

The RWP-024-6XC is a 0.75” dovetail carousel for milling applications. This product is designed for modular applications: utilizing 6 RWP-024 fixtures on a carousel base to machine multiple items in 1 operation. This carousel base mounts to either RWP-006 or RWP-006SS

Max Workpiece Weight	8 Pounds / 3.628 kg
Max Workpiece Size	4.0” / 101.6mm Cubed
Fixture Material	7075-T6511 Aluminum
Number of Clamps	1
Clamp Replacement Kit	RWP-KIT-302SQ (3) required
Dovetail Height	0.125” / 3.175mm
Dovetail Width	0.75” / 19.05mm
Fixture Height	1.5” / 38.1mm

NEED DOVETAIL CUTTERS?

We have a solution for that too. Raptor dovetail cutters machine the flat on the dovetail edge of your workpiece in one pass. This prevents a sharp edge on the dovetail from pressing into the corner of the fixture. Our dovetail cutters are available in a variety of dovetail heights and diameters depending on your need.

RWP-DC403U
3 Flute Uncoated 0.75” Dia.
0.125” High Dovetail Cutter
Works well with aluminum or softer materials. Works well with 1.50, .750, .500 & .375 dovetail sizes.

RWP-DC404C
4 Flute Coated 0.75” Dia.
0.125” High Dovetail Cutter
Designed for prolonged life & for harder materials. Works well with 1.50, .750, .500 & .375 dovetail sizes.

RWP-DC405C
4 Flute Coated 0.248” Dia.
0.0469” High Dovetail Cutter
Designed for prolonged life & for harder materials. Works well with .281 X .046 dovetail size (old style).

RWP-DC407C
4 Flute Coated 0.35” Dia.
0.125” High Dovetail Cutter
Designed for prolonged life & for harder materials. Works well with 1.50, .750, .500 & .375 dovetail sizes.

RWP-DC408C
4 Flute Coated 0.45” Dia.
0.125” High Dovetail Cutter
Designed for prolonged life & for harder materials. Works well with 1.50, .750, .500 & .375 dovetail sizes.

RWP-DC409C
4 Flute Coated 0.248” Dia.
0.0781” High Dovetail Cutter
Designed for prolonged life & for harder materials. Works well with .281 X .0781 dovetail (current style).

RWP-DC410C
4 Flute Coated 0.75” Dia.
0.750” Shank, 0.138” High Dovetail Cutter
Designed for prolonged life & for harder materials. Works well with 2.25” dovetail size.

See website for Speeds & Feed Rates for Raptor Dovetail Cutters.

REPLACEMENT PARTS

RWP-KIT-301SQ
Replacement Clamp Kit
Fits 1.500” Dovetail size.
(2) Clamp assemblies per kit.

RWP-KIT-302SQ
Replacement Clamp Kit
Fits .750” Dovetail size.
(2) Clamp assemblies per kit.

RWP-KIT-303SQ
Replacement Clamp Kit
Fits 2.250” Dovetail size.
(2) Clamp assemblies per kit.

RWP-KIT-304SQ
Replacement Clamp Kit
Fits .281” X .0461 Dovetail size.
(2) Clamp assemblies per kit.

RWP-KIT-305SQ
Replacement Clamp Kit
Fits .375” Dovetail size.
(2) Clamp assemblies per kit.

RWP-KIT-306SQ
Replacement Clamp Kit
Fits .500” Dovetail size.
(2) Clamp assemblies per kit.

RWP-KIT-307SQ
Replacement Clamp Kit
Fits .281” X .0781 Dovetail size.
(2) Clamp assemblies per kit.

RWP-KIT-3001SQ
Replacement Clamp Kit
Fits 2.75” Dovetail size.
(2) Clamp assemblies per kit.

RWP-PLUG-208
Blank 2.500” Diameter allows customer to modify to fit specific application.
Precision 1.000” Diameter fits in the bottom of fixtures/risers that have a Raptor interface.

RWP-8-32
8/32 x 1/4 Replacement Locating Pins
These replacement locating pins are for all Raptor Fixtures except the RWP-019SS and RWP-042SS.
Five replacement pins per pack.
These are for fixtures that were manufactured before 2017.

RWP-8-32CLS
8/32 x 1/4 Replacement Locating Pins
These replacement locating pins are for all Raptor Fixtures except the RWP-019SS and RWP-042SS.
These are for fixtures that were manufactured 2017 or after.
Five replacement pins per pack.

RWP-8-32MO
8/32 x 8/32 x .165 Replacement Locating Pins
These replacement locating pins are for the RWP-019SS and RWP-042SS only.
Five replacement pins per pack.

RAPTOR IS FLEXIBLE.

The parts you make come in different sizes and so does Raptor. Our Micro-Raptors work great for small parts while our Raptor Rails, Raptor Nests and Raptor Tombstone solutions can hold multiple parts or workpieces as heavy as 150 pounds.

RAPTOR IS ADAPTABLE.

Our workholding products can fit any machine and any situation. We have a variety of adapters, risers, and fixtures built to attach directly to the most popular CNC machines. Multiple Raptors can be mounted to tombstones, multi- fixtures and base plates.

Raptor creates new products based on our customers' valuable feedback. If you need something special, let us know.

RWP-202

Adapter

Enables compatible fixtures to be mounted on the Haas TR210, HRT210 & HRC210

Material	7075-T6511 Aluminum
Product Height	2.0" / 50.8mm
Product Diameter	8.20" / 208.28mm
Bolt Circle Diameter	6.50" / 165.1mm
Connection Bolts	(6) 1/2" SHCS
Boss / Hole	2.000" Dia x .375" Boss
Mounts	All Fixtures with Raptor interface

RWP-203

Adapter

Enables compatible fixtures to be mounted on the following Haas machines: TR160, TR160-2, TR200Y, HRT160 & TRT160.

Material	7075-T6511 Aluminum
Product Height	1.5” / 38.1mm
Product Diameter	6.30” / 160.02mm
Bolt Circle Diameter	5.40” / 137.16mm
Connection Bolts	(6) 3/8” SHCS T-NUTS
Boss / Hole	1.499” Dia x 0.313” Boss
Mounts	All Fixtures with Raptor interface

RWP-206

Riser for Mori Seiki NMV3000

While supplies last. Replaced by Universal Riser RWP-262.
For metric pallet see Universal Riser RWP-262.
Enables compatible fixtures to be mounted on the Mori Seiki NMV3000.

Material	7075-T6511 Aluminum
Product Height	3.5” / 88.9mm
Product Diameter	8.980 / 228.092mm
Bolt Circle Diameter	175mm (RWP-205) / 7.0” (RWP-206)
Connection Bolts	(4) M12 SHCS (RWP-205) / (4) 1/2” SHCS (RWP-206)
Boss / Hole	1.180” Dia x 0.250 Boss
Connects to	Mori Seiki NMV3000
Mounts	All Fixtures with Raptor interface

RWP-262

Medium Universal Riser

Enables compatible fixtures to be mounted to multiple machines.

Material	7075-T6511 Aluminum
Product Height	3.5” / 88.9mm
Product Diameter	8.980 / 228.092mm
Bolt Circle Diameter	6.000 to 7.030 range
Connection Bolts	½-13 or M12 SHCS
Boss / Hole	1.000” Dia x 0.30” Receiving hole
Connects to	Mori Seiki NMV5000,DMU50/50eco, NMV3000 Metric/English & multiple other machines
Mounts	All Fixtures with Raptor interface

*Raptor’s plug RWP-PLUG-208, sold separately, may need to be modified.

RWP-208

Emergency Adapter

Emergency adapter plate enables any compatible fixtures to be mounted on the pallet of your machine. You simply add the mounting holes.

Material	6061 Aluminum
Product Height	1.5”/ 38.1mm
Product Diameter	7.950” / 201.93mm
Boss / Hole	1.000” Dia x 0.30” Receiving hole
Connects to	Any Machine
Mounts	All Fixtures with Raptor interface

*Raptor’s plug RWP-PLUG-208, sold separately, may need to be modified.

RWP-209

Emergency Adapter

Emergency adapter plate enables any compatible fixtures to be mounted on the pallet of your machine. You simply add the mounting holes.

Material	6061 Aluminum
Product Height	1.5” / 38.1mm
Product Diameter	9.055” / 229.997mm
Boss / Hole	1.000” Dia x 0.30” Receiving hole
Connects to	Any Machine
Mounts	All Fixtures with Raptor interface

*Raptor’s plug RWP-PLUG-208, sold separately, may need to be modified.

RWP-239

Small Machine Adapter

Small adapter allows RWP-024 and RWP-024SS (.75” Dovetail), RWP-019SS and RWP-042SS (.375” Dovetail) to be adapted to the following machines: Haas TRT70 & TRT100, Nikken 100FA & 130FA, Yukiwa TNT100L, Sankyo RT80 & RT100 and others.

Material	6061 Aluminum with Blue Anodize Finish
Product Height	.75” / 19mm
Product Diameter	3.940 / 100mm
Boss / Hole	.3755” Dia x .38” Receiving hole
Includes	Centering plug .375” Dia. with 2.50” Blank machinable diameter and a 3/8” x .75 LG dowel pin

There are many CNC machines and rotary table sizes. That's why we offer universal adapters. Our universal adapters are 2 inches tall and are available in 9 inch and 11 inch diameters. Both universal adapters have multiple mounting slots so they are guaranteed to fit your machine.

Combine the universal adapters with extenders available in either 1 inch or 2 inch sizes to provide additional height without unnecessary bulk. Please refer to charts for options.

RWP-222

Universal Adapter 9.875" Diameter, 2" Height

Has multiple slots to allow for use on multiple machine pallets or rotary tables. This universal adapter is modular in design with many options

Material	7075 Aluminum with Black Anodized Finish
Product Height	2.0" / 50.8mm
Product Diameter	9.875" / 250.825mm
Bolt Circle Diameter	T-Slots for 3/8" or M10 SHCS on 5.50"-8.50"/139.7mm-215.9mm B.C.
Connection Bolts	(4) 1/2"-13 UNC-2B
Boss / Hole	1.00" Dia x 0.30" Receiving Hole
Connects to	RWP-206, RWP-601, RWP-602
Mounts	All Fixtures with Raptor interface

*Centering plug required. Raptor's plug RWP-PLUG-208, sold separately, may need to be modified.

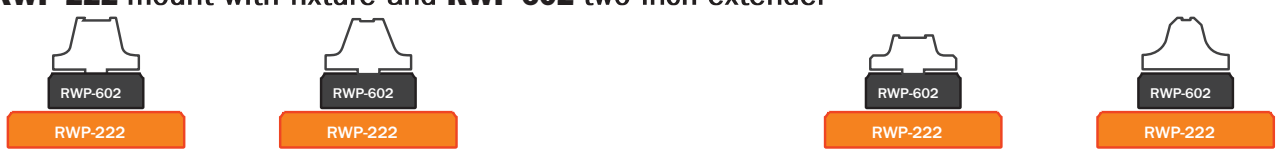
RWP-222 Universal Adapter Configuration Options

RWP-001(SS)	RWP-002(SS) / RWP-030SS	RWP-006(SS)	RWP-013(SS)	RWP-018(SS)

RWP-222 direct mount with fixture only

RWP-222 direct mount with fixture and **RWP-601** one inch extender

RWP-222 mount with fixture and **RWP-602** two inch extender



RWP-222 mount with fixture and **RWP-206** riser

RWP-223

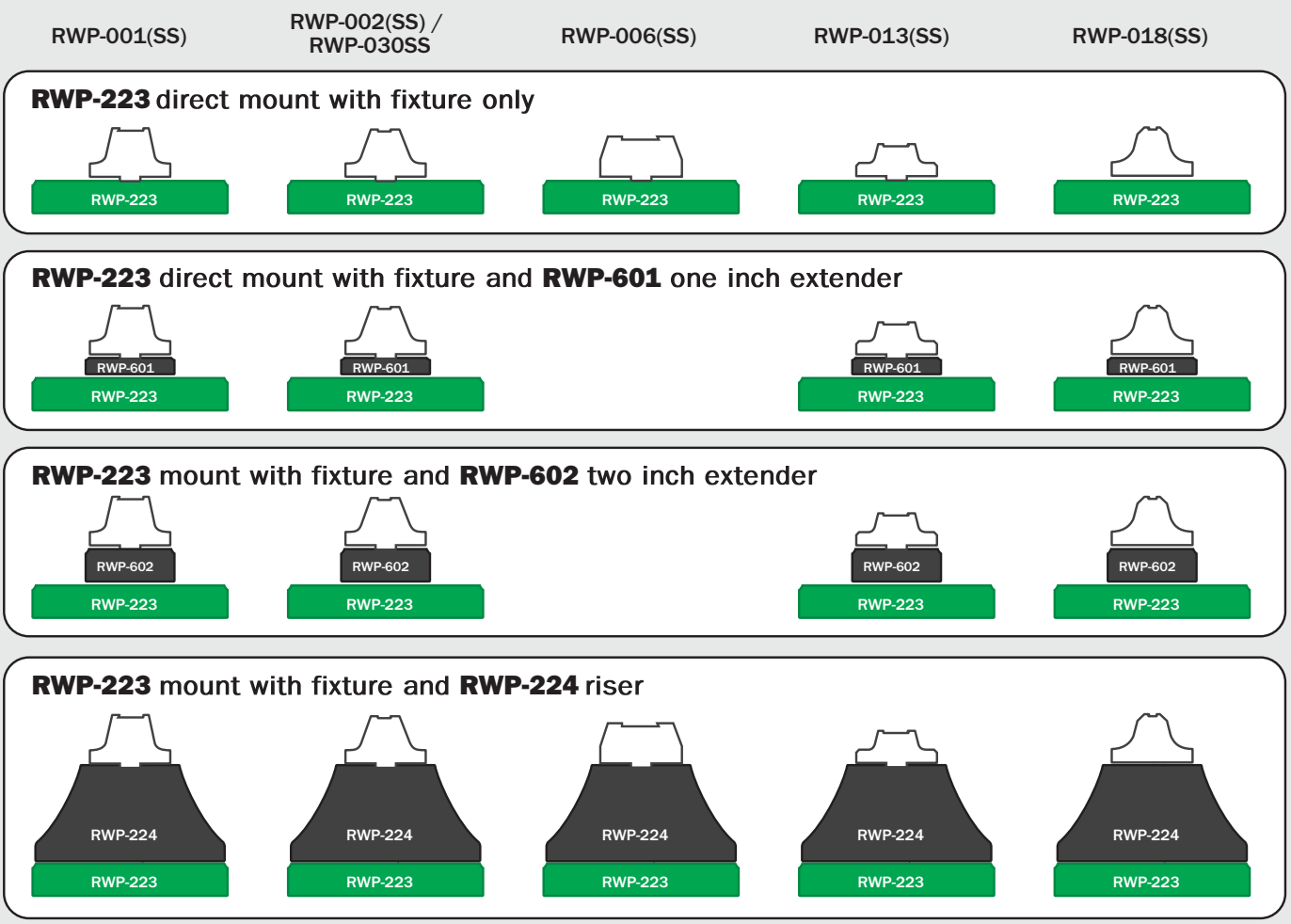
Universal Adapter 11.95” Diameter, 2” Height

Has multiple slots to allow for use on multiple machine pallets or rotary tables. This universal adapter is modular in design with many options

Material	7075 Aluminum with Black Anodized Finish
Product Height	2.0” / 50.8mm
Product Diameter	11.950” / 303.53mm
Bolt Circle Diameter	T-Slots for ½” or M12 SHCS on 6.00”-10.00”/152.4mm-254mm B.C.
Connection Bolts	(4) 1/2”-13 UNC-2B
Boss / Plug	1.250” Dia x 0.30” Receiving Hole
Connects to	RWP-224, RWP-601, RWP-602
Mounts	All Fixtures with Raptor interface

*Centering plug required. Raptor’s plug RWP-PLUG-208, sold separately, may need to be modified.

RWP-223 Universal Adapter Configuration Options



RWP-224

Riser

This riser can be used in a modular configuration when combined with the Universal Adapter: RWP-223.

Material	7075 Aluminum
Product Height	6.0” / 152.4mm
Product Diameter	11.950” / 303.53mm
Bolt Circle Diameter	10.150” / 257.81mm
Connection Bolts	(4) 1/2”-13 SHCS
Boss / Hole	1.000” Dia. X .300” Receiving Hole
Connects to	Any Machine, RWP-223
Mounts	All Fixtures with Raptor interface

*Centering Plug required, RWP-PLUG-208, sold separately, may need to be modified.

RWP-228

Riser

While supplies last. Replaced by Universal Riser RWP-262. Enables compatible fixtures to be mounted on the pallet of the DMG Mori DMU50/50eco machine.

Material	7075 Aluminum
Product Height	3.494” / 88.7476mm
Product Diameter	8.96” / 227.584mm
Bolt Circle Diameter	7.015” / 178.181mm
Connection Bolts	(4) M12 SHCS
Boss / Hole	1.180” Dia x .250” Boss
Connects to	DMG Mori DMU50/50eco
Mounts	All Fixtures with Raptor interface

RWP-234

Riser

Enables compatible fixtures to be mounted on the Haas UMC-750 / UMC-750SS or Matsuursa MX-520 300MM.

Material	7075-T6511 Aluminum
Product Height	4.50” / 114.3 mm
Product Diameter	11.40” / 289.56
Bolt Circle Diameter	9.92” / 251.968 mm
Connection Bolts	(4) M12 SHCS
Boss / Hole	1.970” Dia. x .750” Receiving Hole
Connects to	Haas UMC-750 / UMC-750SS or Matsuursa MX-520 500MM
Mounts	All Fixtures with Raptor interface

RWP-237

Nest Riser

The RWP-237 is an aluminum Nest riser, designed for the Haas UMC-750 / UMC-750SS or Matsuursa MX-520 300MM.

Material	7075-T6511 Aluminum
Product Height	6.550” / 166.37mm
Product Diameter	14.75” / 374.65mm
Bolt Circle Diameter	13.20” / 335.28mm
Connection Bolts	(8) 1/2” SHCS
Boss / Hole	1.970” Dia x .750” Receiving Hole
Connects to	Haas UMC-750 / UMC-750SS or Matsuursa MX-520 500MM
Mounts	All Fixtures with Raptor interface

RWP-238-8

Adapter 8 Thread

Aluminum Adapter to connect RWP-003 5C Rotary Indexer Spindle Nose 8TPI.

Material	7075 Aluminum
Machine Type	5C Rotary Indexer
Connects to	RWP-003

RWP-238-10

Adapter 10 Thread

Aluminum Adapter to connect RWP-003 5C Rotary Indexer Spindle Nose 10TPI.

Material	7075 Aluminum
Machine Type	5C Rotary Indexer
Connects to	RWP-003

RWP-241

Adapter

This adapter has the mounting interface for the RWP-027, 1.5” dovetail fixture, and is designed for the Yukiwa TNT100L.

Material	7075-T6511 Aluminum
Product Height	0.75” / 166.37mm
Product Diameter	3.938” / 374.65mm
Bolt Circle Diameter	2.677” / 68mm
Connection Bolts	(4) M8 SHCS
Boss / Hole	1.968” Dia x 0.230”
Machine Type	Yukiwa TNT100L
Fixture Compatibility	RWP-027

RWP-601

Aluminum Extender 1” Height

The 1” Extender is to add height when used with either Universal Adapter: RWP-222 or RWP-223 in lieu of using a riser.

RWP-602

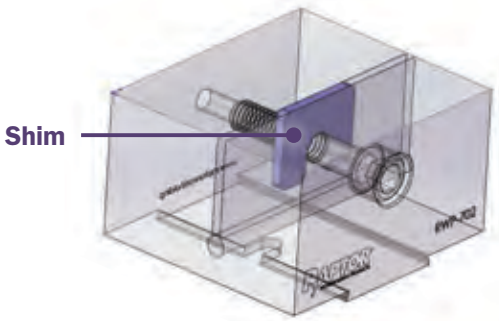
Aluminum Extender 2” Height

The 2” Extender is to add height when used with either Universal Adapter: RWP-222 or RWP-223 in lieu of using a riser.

Material	7075 Aluminum
Connects to	RWP-222, RWP-223
Boss / Plug	1.25” Dia x 0.25 31.75mm Dia x 6.35mm
Mounts	All Fixtures with Raptor interface

PINCH BLOCKS

The Pinch Block connects directly to a Raptor dovetail fixture and is designed to offer a quick solution for secondary or final operations. Allows for quick dovetail removal and part completion. Convenient size and shape. Simply tighten with T-Handle wrench. Available in three sizes



RWP-702

Aluminum Pinch Block

Utilizes a single 3/8-16 Socket Head Cap Screw to actuate it.

Material	7075-T6511 Aluminum
Product Dimensions	2.350” L x 2.950” W x 1.820” H 59.69mm x 74.93mm x 46.228mm
Dovetail Width	1.50” / 38.1mm
Fixture Compatibility	RWP-001(SS), RWP-004, RWP-013(SS), RWP-026, RWP-027, RWP-036SS

*Screw and shim are included

RWP-703

Aluminum Pinch Block

Utilizes two 3/8-16 Socket Head Cap Screws to actuate it.

Material	7075-T6511 Aluminum
Product Dimensions	5” L x 2.950” W x 1.820” H 127mm x 74.93mm x 46.228mm
Dovetail Width	1.50” / 38.1mm
Fixture Compatibility	RWP-001(SS), RWP-004, RWP-013(SS), RWP-026, RWP-027, RWP-036SS

*Screw and shim are included

RWP-704

Aluminum Pinch Block

Utilizes a single 3/8-16 Socket Head Cap Screw to actuate it.

Material	7075-T6511 Aluminum
Product Dimensions	2.350” L x 2.950” W x 1.820” H 59.69mm x 74.93mm x 46.228mm
Dovetail Width	0.75” / 38.1mm
Fixture Compatibility	RWP-002(SS), RWP-015, RWP-023, RWP-030SS, RWP-034SS, RWP-038SS, RWP-405

*Screw and shim are included

The benefits of Raptors' workholding products are widespread!

Our customers have reported that by utilizing Raptor products in their facilities, there have been numerous benefits:

- Saving time and money by becoming more efficient.
- Ultimately increasing overall company health by:
  - Decreasing production time while increasing yield of finished goods
  - Opening up production schedules to accommodate more orders.
  - Improving employee performance by streamlining application processes, while increasing their enthusiasm and morale,
  - Growing their customer base due to greater production capacity, improving pricing and even increasing on-time delivery.

As we always say:
"Spend time making parts not figuring out how to hold them – Raptor is your solution!"

Policies & Warranty

Engineering Changes

Specification and engineering data are subject to change without notice.

Manufacturing Policy

Products supplied by Raptor are high quality and adhere to manufacturing standards. Tolerances are uniformly held in accordance with catalog specifications. Our products are simple to use and we provide support material with each shipment to ensure that your applications go smoothly. We are happy to provide you with additional support, just contact us.

Damaged, Short or Lost Items

UPS is our primary carrier. If your package and subsequent product is damaged/lost in transit, immediately place a claim with your UPS office. Keep all damaged product and packaging for inspection by UPS. Notify Raptor so we can help replace the merchandise.

Returned Goods

Materials cannot be returned without authorization. Final credit will be determined as follows:

- *Only catalog items suitable for resale may be returned.*
- *Customers need to obtain an RGA# by contacting a Raptor Customer Service representative and reference the RGA# on the returned goods.*
- *Invoice number and date must be furnished.*
- *Follow packing instructions, if applicable, for returning goods.*
- *Transportation charges must be prepaid.*
- *Credit value will be issued at invoiced price less a minimum 20% restocking charge. Specials cannot be returned.*

Warranty

Raptor Products are protected with a 1 year limited warranty for parts*

* Subject to the terms as described in our Limited Warranty Policy.

RWP-001 Aluminum 1.5” Dovetail Fixture 11
RWP-001SS Stainless Steel 1.5” Dovetail Fixture 11
RWP-002 0.75” Dovetail Fixture 14
RWP-002SS 0.75” Dovetail Fixture. 14
RWP-003 Aluminum 0.75” Dovetail Fixture. 14
RWP-003-4X Pyramid System 23
RWP-004 Aluminum 1.5” Dovetail Fixture 11
RWP-006 Aluminum 2.25” Dovetail Fixture. 10
RWP-006SS Stainless Steel 2.25” Dovetail Fixture . . . 10
RWP-007SS Stainless Steel 0.75” Dovetail Fixture. . . . 15
RWP-011SS Stainless Steel 0.75” Dovetail Fixture . . . 15
RWP-012SS Stainless Steel 0.75” Dovetail Fixture . . . 15
RWP-013 Aluminum 1.5” Dovetail Fixture 11
RWP-013SS Stainless Steel 1.5” Dovetail Fixture 11
RWP-015 Aluminum 0.75” Dovetail Fixture. 16
RWP-017SS Stainless Steel 0.50” Dovetail Fixture . . . 19
RWP-018 Aluminum 0.50” Dovetail Fixture. 19
RWP-018SS Stainless Steel 0.50” Dovetail Fixture . . . 19
RWP-019-4X45T Pyramid System 24
RWP-019-4X90T Mini Tombstone System 24
RWP-019SS Stainless Steel 0.375” Dovetail Fixture . . . 20
RWP-022SS Stainless Steel 0.50” Dovetail Fixture . . . 19
RWP-023 Aluminum 0.75” Dovetail Fixture: 16
RWP-024 Aluminum 0.75” Dovetail Fixture. 16
RWP-024-2XR In-Line Bridge System 25
RWP-024-3XR In-Line Bridge System 26
RWP-024-4XR In-Line Bridge System 26
RWP-024-6XC Carousel 27
RWP-024SS Stainless Steel 0.75” Dovetail Fixture . . . 16
RWP-025 Aluminum Rail 17
RWP-026 Aluminum 1.5” Dovetail Fixture 12
RWP-027 Aluminum 1.5” Dovetail Fixture 12
RWP-030SS Stainless Steel 0.75” Dovetail Fixture . . . 17
RWP-031SS Stainless Steel Dovetail Fixture. 21
RWP-032SS Stainless Steel Dovetail Fixture. 21
RWP-034SS Stainless Steel 0.75” Dovetail Fixture . . . 17
RWP-036SS Stainless Steel 1.5” Dovetail Fixture 12
RWP-038SS Stainless Steel 0.75” Dovetail Fixture . . . 18
RWP-042-4X90T Mini Tombstone System 25
RWP-042SS Stainless Steel 0.375” Dovetail Fixture. . . 20
RWP-1027 Soft Jaw (Right) 4
RWP-1027-ST Soft Jaw (Right) 4
RWP-1027-ST Soft Jaw (Right) 4
RWP-1028 Soft Jaw (Left). 4
RWP-1028-ST Soft Jaw (Left). 4
RWP-1050 Serrated 45˚ Dovetail. 4
RWP-1051 Standard Parallel (1/8” Ledge) 5
RWP-1052 Thin Parallel (1/16” Ledge). 5
RWP-1056 Straight Edge 60˚ Dovetail 5
RWP-1527 Soft Jaw (Right) 4
RWP-1527-ST Soft Jaw (Right) 4
RWP-1528 Soft Jaw (Left). 4
RWP-1528-ST Soft Jaw (Left). 4
RWP-1550 Serrated 45˚ Dovetail 4
RWP-1551 Standard Parallel (1/8” Ledge) 5
RWP-1556 Straight Edge 60˚ Dovetail 5
RWP-202 Adapter 30
RWP-203 Adapter 31
RWP-206 Riser for Mori Seiki NMV3000 31
RWP-208 Emergency Adapter. 32
RWP-209 Emergency Adapter. 32
RWP-209-V100 Emergency Adapter 6

RWP-213SS Stainless Steel 0.75" 20
RWP-214SS Stainless Steel 1.5" Adapter 20
RWP-222 Universal Adapter. 33
RWP-222-V100 Universal Adapter 6
RWP-223 Universal Adapter. 34
RWP-223-V100 Universal Adapter 6
RWP-224 Riser 35
RWP-228 Riser 35
RWP-234 Riser 35
RWP-237 Nest Riser 36
RWP-238-10 Adapter 10 Thread 36
RWP-238-8 Adapter 8 Thread. 36
RWP-239 Small Machine Adapter 32
RWP-241 Adapter. 36
RWP-242-V100 Riser Plate 7
RWP-244-V100 2.25" Dovetail Connector Plate 7
RWP-248SS Stainless Steel 0.5" Adapter 20
RWP-249SS Stainless Steel 0.5" Adapter 20
RWP-251-V100 2.25" Dovetail Connector Plate 7
RWP-262 Riser 31
RWP-33020 Mitee-Bite End Stop 5
RWP-33050 Mitee-Bite TalonGripTM 5
RWP-401-11 Aluminum 11" Rail with 1.5" Dovetail . . . 13
RWP-403SS-12 Stainless Steel 2.75" Dovetail Fixture . 10
RWP-405 Aluminum 8" Rail with 0.75" Dovetail 18
RWP-502 100mm Self Center Vise 3
RWP-505 150mm Self Center Vise 3
RWP-601 Aluminum Extender 36
RWP-602 Aluminum Extender 36
RWP-702 Aluminum Pinch Block 37
RWP-703 Aluminum Pinch Block 37
RWP-704 Aluminum Pinch Block 37
RWP-8-32 8/32 x 1/4 Replacement Locating Pins. . . . 28
RWP-8-32CLS 8/32 x 1/4 Replacement Locating Pins . 28
RWP-8-32MO Replacement Locating Pins 28
RWP-DC403U 3 Flute Uncoated 0.75" 27
RWP-DC404C 4 Flute Coated 0.75" 27
RWP-DC405C 4 Flute Coated 0.248" 27
RWP-DC407C 4 Flute Coated 0.35" 27
RWP-DC408C 4 Flute Coated 0.45" 27
RWP-DC409C 4 Flute Coated 0.248" 27
RWP-DC410C 4 Flute Coated 0.75" 27
RWP-KIT-3001SQ Replacement Clamp Kit 28
RWP-KIT-301SQ Replacement Clamp Kit 28
RWP-KIT-302SQ Replacement Clamp Kit 28
RWP-KIT-303SQ Replacement Clamp Kit 28
RWP-KIT-304SQ Replacement Clamp Kit 28
RWP-KIT-305SQ Replacement Clamp Kit 28
RWP-KIT-306SQ Replacement Clamp Kit 28
RWP-KIT-307SQ Replacement Clamp Kit 28
RWP-PLUG-208 28

- Vises
- Cutters & Parts
- Dovetail Fixtures
- Adapters & Risers
- Multi-Fixtures
- Pinch Blocks

THE BEST IN THE BUSINESS JUST BECAME EVEN STRONGER!

TE-CO has entered into a partnership to bring Swiss engineering and 100% Swiss made high pressure coolant lines to the United States.

RAPTOR WORKHOLDING PRODUCTS + PIRANHA COOLING LINE®

The patented

PIRANHA COOLING LINE

solves all cooling problems on chip-removing processing

- Fits on all standard tool holders
- Flexible and available in both (½ and ¼ inch)
- Withstands pressures up to 80 bar
- Versatile use (cooling and high pressure chip removal)
- Cost-Effective
- Long lifespan thanks to anodized coating
- Light Weight
- New Design
- 100% Swiss Engineered and Manufactured

¼ INCH

FOR HIGH PRESSURE
80 BAR

THREADED CONNECTOR

GA-1/8”
Threaded Connector 1/8”

GA-1/8” NPT
Threaded Connector 1/8” NPT

GA-1/4”
Threaded Connector 1/4”

GA-1/4” NPT
Threaded Connector 1/4” NPT

GA-M8
Threaded Connector M8

GA-M8-L
Threaded Connector M8 Long

GA-M10
Threaded Connector M10

GA-M10x1
Threaded Connector M10x1

GA-M12x1
Threaded Connector M12x1

GA-R1/8”-L
Threaded Connector R1/8” Long

GA-R
Threaded Connector Blank

SPACER

D-12.5/28
Spacer 28mm

D-12.5/43
Spacer 43mm

D-12.5/70
Spacer 70mm

¼ INCH

NOZZLE

RD-12.5-1.5

Round Nozzle Ø1.5mm

RD-12.5-3.5

Round Nozzle Ø3.5mm

RD-12.5-4.5

Round Nozzle Ø4.5mm

RD-12.5-5.5

Round Nozzle Ø5.5mm

RD-12.5-7/1.5

Round Nozzle Multi-Hole

SDK-12.5/90°

Special Nozzle Ø1.8mm / 90° Short

SDL-12.5/90°

Special Nozzle Ø1.8mm / 90° Long

SDK-12.5/60°

Special Nozzle Ø1.8mm / 60° Short

SDL-12.5/60°

Special Nozzle Ø1.8mm / 60° Long

FD-12.5-20

Flat Nozzle 20mm

DISTRIBUTOR

L-12.5

90° Elbow

Quatro-12.5

Quatro Distribution Block

T-12.5

T-Distributor

Y-12.5

Y-Distributor

H-12.5

Ball Valve 1/4”

¼ INCH

ACCESSORIES

M-SW16

Nut SW16

D-SW16

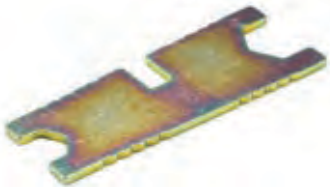
Cap SW16

Ring 12.5

O-Ring 1/4”

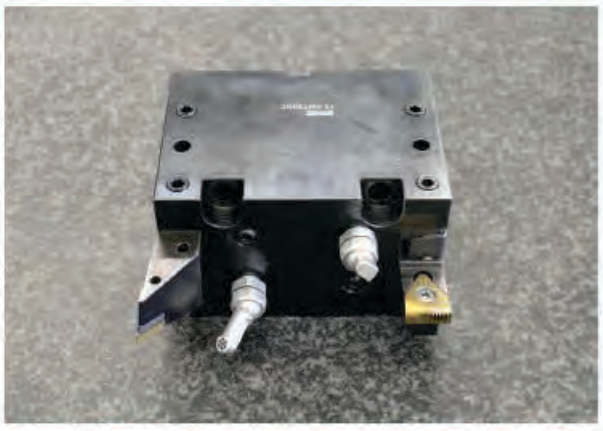
S-11/16

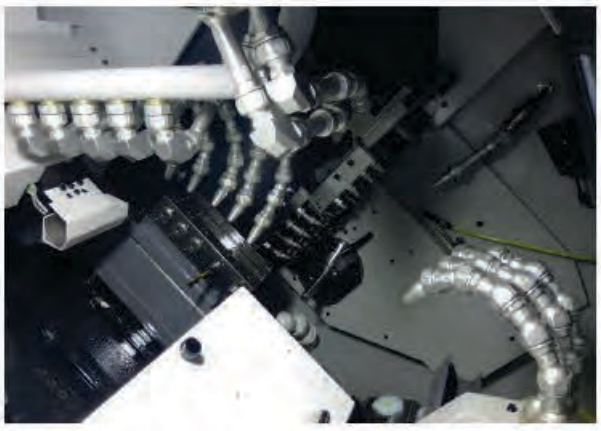
Hexagon Wrench



CUSTOMIZED PRODUCTS

Can be produced by request





COOLING LINE STARTER KIT

Set

PCL-1/4 SET 1

Cooling Line Starter Kit

Piranha Cooling Line Starter Kit Content:

3 Spacer 28.0mm
3 Spacer 43.0mm
3 Spacer 70.0mm
1 Threaded Connector 1/4”
1 Threaded Connector 1/4” NPT
1 Threaded Connector 1/8” NPT
1 Threaded Connector M10x1
1 Threaded Connector M12x1
1 Round Nozzle Ø3.5mm
1 Round Nozzle Ø4.5mm
1 Round Nozzle Ø5.5mm
1 Special Nozzle Ø1.8/60° Short
1 Special Nozzle Ø1.8/60° Long
1 Special Nozzle Ø1.8/90° Short
1 Special Nozzle Ø1.8/90° Long
5 Nuts SW 16x7mm
1 90° Elbow
1 Y-Distributor
2 Hexagon Wrench SW11/SW16
L x W x H 210 x 150 x 40mm

½ INCH

FOR HIGH PRESSURE
80 BAR

THREADED CONNECT-

GA-22-3/8” NPT
Threaded Connector 3/8” NPT

GA-22-3/8”
Threaded Connector 3/8”

GA-22-1/2” NPT
Threaded Connector 1/2” NPT

GA-22-1/2”
Threaded Connector 1/2”

SPACER

D-22-46
Spacer 46.5mm

D-22-63
Spacer 63.5mm

D-22-80
Spacer 80mm

NOZZLE

RD-22-6
Round Nozzle Ø6mm

RD-22-8
Round Nozzle Ø8mm

RD-22-10
Round Nozzle Ø10mm

RD-22-12-19.2
Round Nozzle Ø10mm Multi-Hole

SDK-22/60°
Special Nozzle Multi-Hole / 60° Short

SDL-22/60°
Special Nozzle Multi-Hole / 60° Long

SDK-22/90°
Special Nozzle Multi-Hole / 90° Short

SDL-22/90°
Special Nozzle Multi-Hole / 90° Long

½ INCH

DISTRIBUTOR

L-1/2”
90° Elbow

T-1/2”
T-Distributor

Y-1/2”
Y-Distributor

Y-1/2”- 1/4”
Y-Distributor

H-22
Ball Valve 1/2”

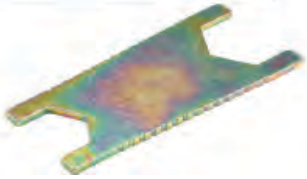
ACCESSORIES

M-SW27
Nut SW27

D-SW27
Cap SW27

Ring 22
O-Ring 1/2”

S-21/27
Hexagon Wrench



FLAT NOZZLE

FD-22-30
Flat Nozzle 30

FD-22-40
Flat Nozzle 40

FD-22-50
Flat Nozzle 50

FD-22-60
Flat Nozzle 60

FD-22-80
Flat Nozzle 80

FD-22-100
Flat Nozzle 100

RAPTOR WORKHOLDING PRODUCTS + PIRANHA COOLING LINE®

100 Quinter Farm Road Union, OH 45322

Toll Free: 800-824-8333

www.raptorworkholding.com

Contact Us:

www.info@raptorworkholding.com

NOTES

NOTES

RAPTOR
WORKHOLDING PRODUCTS

RaptorWorkholding.com

Patent No. US8,672,310 B2
Patent No. US9,126,299 B2

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