

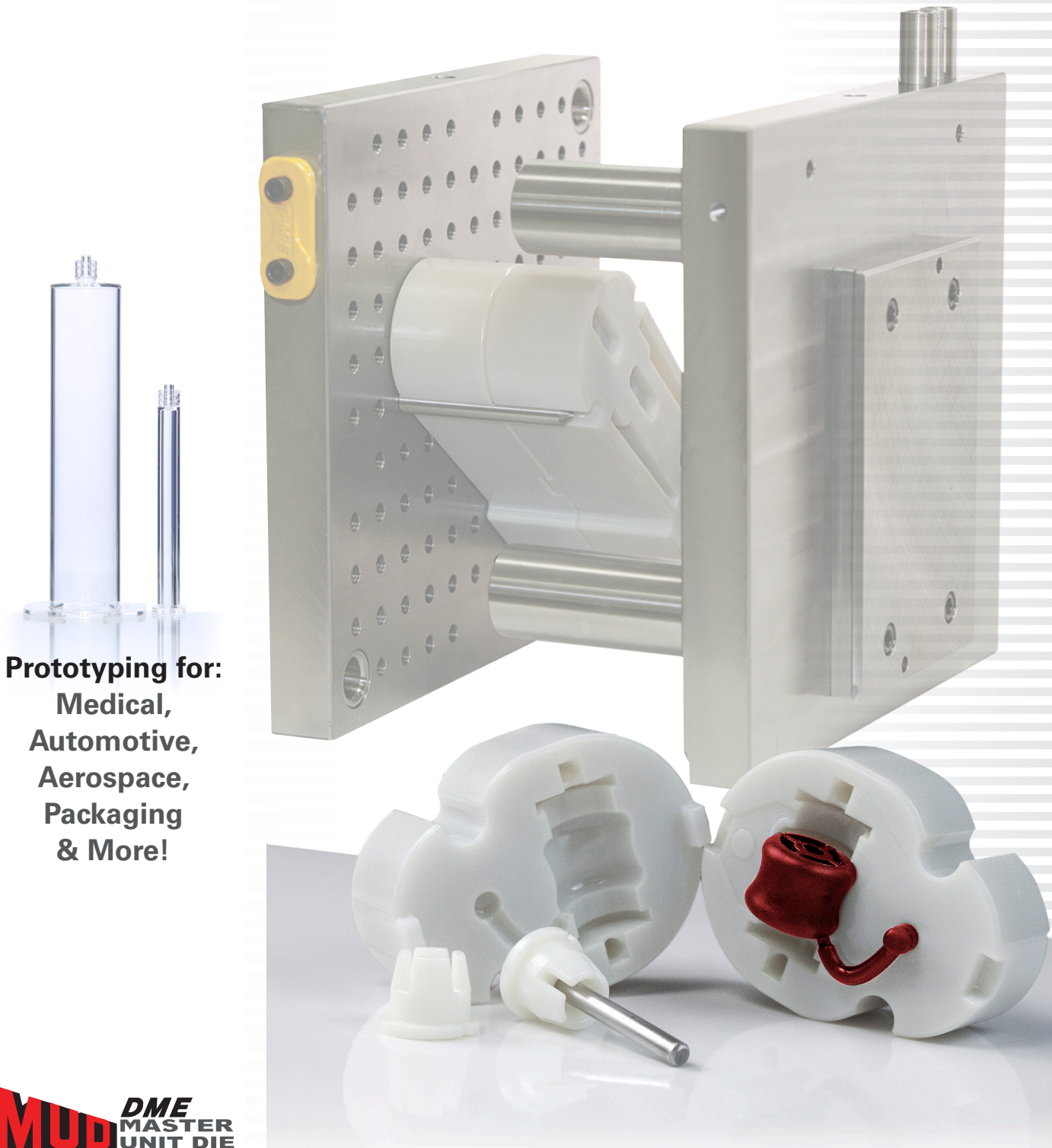


RAPID SUCCESS

Rapid Prototyping for DME MUD Mold Bases

Cut prototype lead time up to **90%**

Prototype cost saving up to **70%**



Prototyping for:
Medical,
Automotive,
Aerospace,
Packaging
& More!

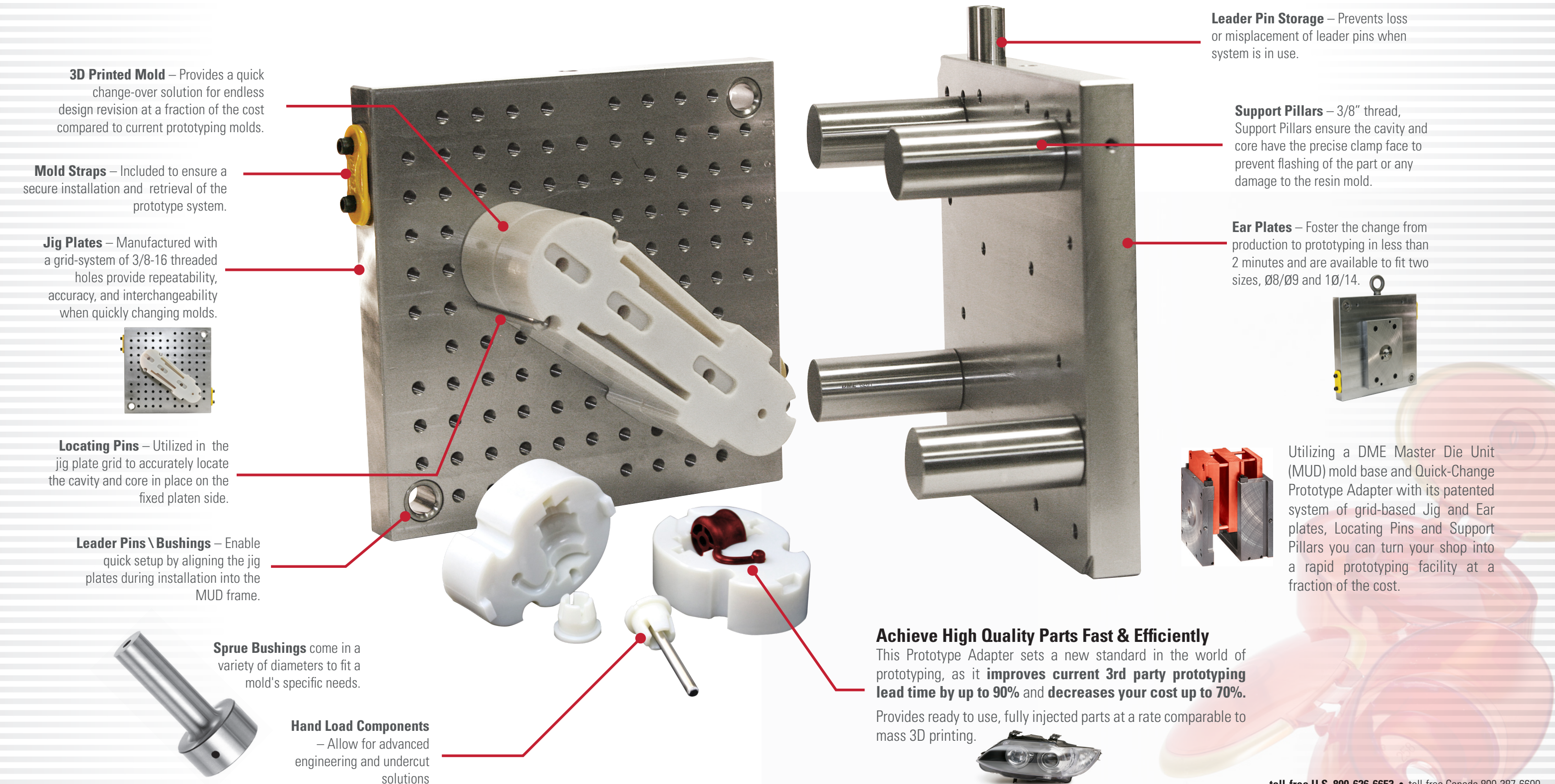
MEET DME'S QUICK-CHANGE PROTOTYPE ADAPTER!

RAPID SUCCESS By Converting Your MUD Mold Base To A Prototyping Base.

Often there is a need for prototypes executed in real production materials, sometimes in low to mid quantities of parts (where production tooling isn't financially feasible). Your clients often have tight deadlines to meet the need to quickly market test a new product. Adding DME's Quick-Change Prototype Adapter to your existing MUD Mold System allows you to create fast, high quality parts fit for "real world" use. **Don't 3D print your parts, 3D print your mold.**



DME's Quick-Change Mold Base Prototype Adapter enables any molder to become a rapid prototyper for the quickest possible product validation. The **patent pending** prototype adapter allows you to switch from production to prototyping in two minutes or less and then back to production, when coupled with most quick-change mold base frames. This creates the ultimate in flexibility since time on your injection molding machine is a precious commodity.



3D Printed Mold – Provides a quick change-over solution for endless design revision at a fraction of the cost compared to current prototyping molds.

Mold Straps – Included to ensure a secure installation and retrieval of the prototype system.

Jig Plates – Manufactured with a grid-system of 3/8-16 threaded holes provide repeatability, accuracy, and interchangeability when quickly changing molds.

Locating Pins – Utilized in the jig plate grid to accurately locate the cavity and core in place on the fixed platen side.

Leader Pins \ Bushings – Enable quick setup by aligning the jig plates during installation into the MUD frame.

Sprue Bushings come in a variety of diameters to fit a mold's specific needs.

Hand Load Components – Allow for advanced engineering and undercut solutions

Leader Pin Storage – Prevents loss or misplacement of leader pins when system is in use.

Support Pillars – 3/8" thread, Support Pillars ensure the cavity and core have the precise clamp face to prevent flashing of the part or any damage to the resin mold.

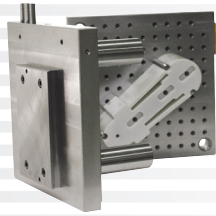
Ear Plates – Foster the change from production to prototyping in less than 2 minutes and are available to fit two sizes, Ø8/Ø9 and 1Ø/14.

Utilizing a DME Master Die Unit (MUD) mold base and Quick-Change Prototype Adapter with its patented system of grid-based Jig and Ear plates, Locating Pins and Support Pillars you can turn your shop into a rapid prototyping facility at a fraction of the cost.

Achieve High Quality Parts Fast & Efficiently

This Prototype Adapter sets a new standard in the world of prototyping, as it **improves current 3rd party prototyping lead time by up to 90%** and **decreases your cost up to 70%**.

Provides ready to use, fully injected parts at a rate comparable to mass 3D printing.



DME'S QC-PA - CONVERTING YOUR MUD BASE TO RAPID PROTOTYPING

THE EASY WAY TO EXPAND YOUR SHOPS REVENUE

KEY CUSTOMER BENEFITS

- Early product validation
- Confirmation of product form, fit, function
- Validate thermoplastic selection
- Cut prototype lead time up to 90%
- Prototype cost saving up to 70%
- Fits MUD Frame sizes – 08/09, 10/14UF321
- Extends time available to design
- Price and features represents much greater value over a 3rd party prototype business
- Buy the DME Prototype Adapter once, use it to prototype for years to come
- Truly injected end product
- Less cost and timing for engineering changes

PROTOTYPE ADAPTER FEATURES

- 12" X 12" jig plates for 08/09 or equiv frame
- Or 15"x 12" jig plates for 10/14 or equiv frame
- Selectable locating pins lengths
- Selectable support pillars lengths
- Leader pins\bushings
- Sprue bushing
- Mold straps
- Maximum resin cavity/core size 10" x 13"
- Maximum steel cavity/core size 15" x 18"
- Multiple resins for cavity/cores

Today's global manufacturing industries are fast-paced with new product innovation occurring daily. Manufacturers today need partners who they can rely on for cost effective injection molding and prototyping services for these innovations.

INDUSTRIES COMMONLY REQUIRING RAPID PROTOTYPING:

- Aerospace & UAV
- Automotive
- Communications
- Consumer Products
- Industrial
- Medical
- Product Development
- Robotics & Automation

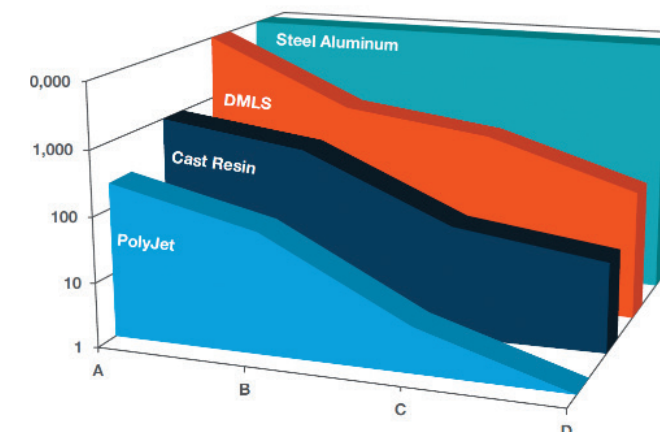


3D PLASTIC PRINTING - CAVITY & CORE



When using 3D plastic printing techniques for cavity and cores, both tool life and part quality will be dependent on the thermoplastic material used during the injection molding process. As melt temperature, viscosity, and abrasiveness rise; tool life will decline. Size, shape, complexity, tool design and material selection all play a large role in the success of 3D plastic printed molds. DME and its 3D printing partners are not only the pioneers but are experts in applying this technology. Estimated number of parts obtained per tool, based on type of material used shown below.

When dealing with rapid prototyping, sometimes the end product is manufactured through 3D printing of the individual product. One main concern with this is that you don't get the true resin properties of an injected part and often deal with inadequate layer adhesion. This can then lead to unreliable structural integrity and even dimensional inaccuracies when testing directly printed parts. With our rapid prototype system you can provide actual injected parts for true to life tests in nearly the same time frame as 3D printed individual pieces.



A	• Polyethylene (PE)
	• Polypropylene (PP)
	• Polystyrene (PS)
	• Acrylonitrile Butadiene Styrene (ABS)
	• Thermoplastic elastomer (TPE)
B	• Glass-filled Polypropylene (PP+G)
	• Acetal (Polyoxymethylene [POM])
	• Polycarbonate-ABS blend (PC+ABS)
	• Polycarbonate (PC)
C	• Glass-filled Acetal (POM+G)
	• Polyamide (PA)
	• Glass-filled Polycarbonate (PC+G)
D	• Glass-filled Polyamide (PA+G)
	• Polyphenylene Oxide (PPO)
	• Polyphenylene Sulfide (PPS)



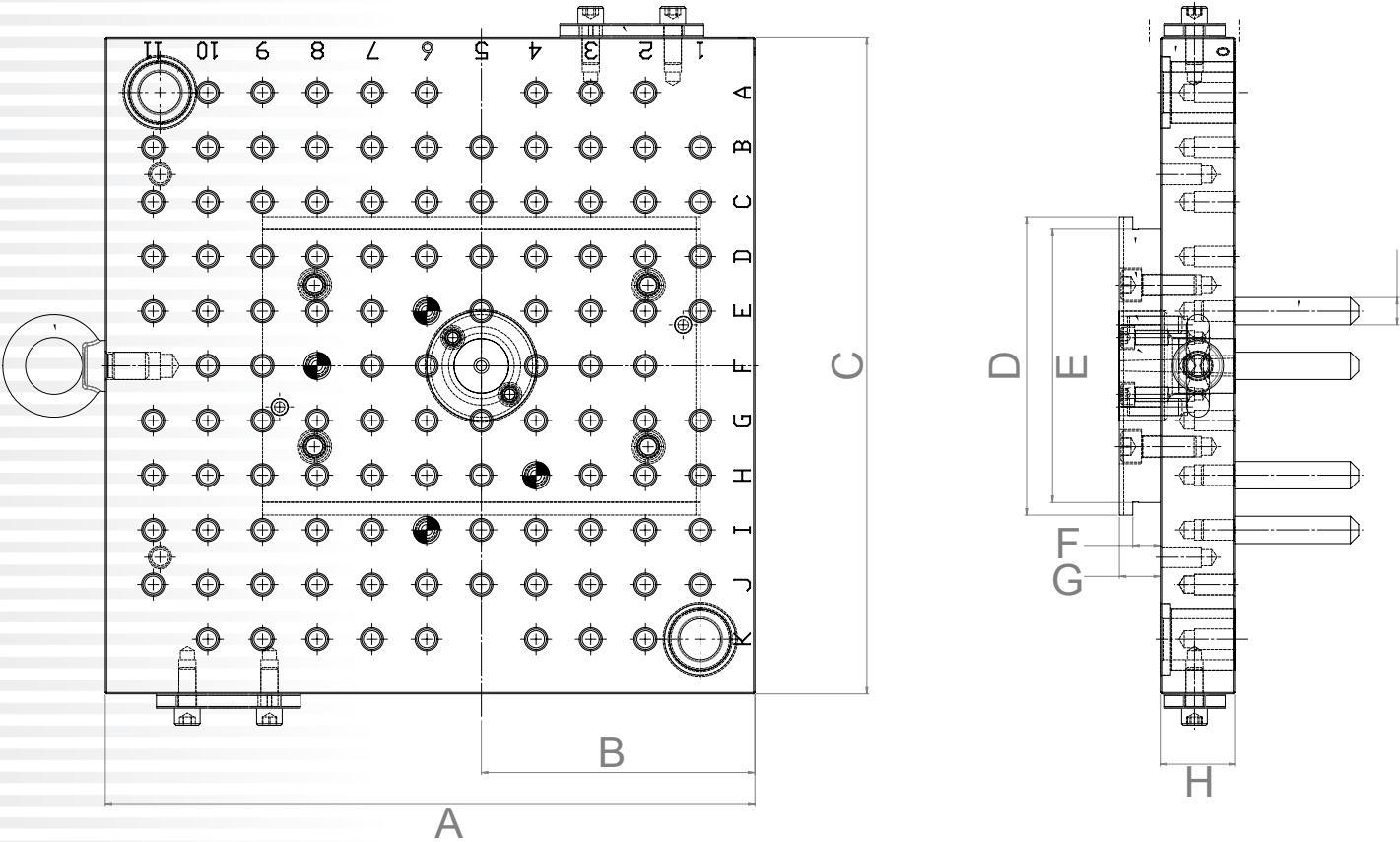


DME'S QC-PA - TECHNICAL SPECIFICATIONS

JIG PLATE, LOCATION PINS, SPRUE BUSHINGS & SUPPORT PILLARS

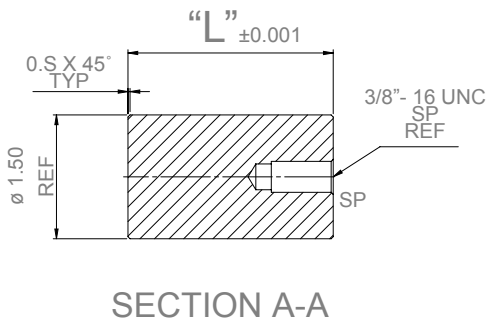
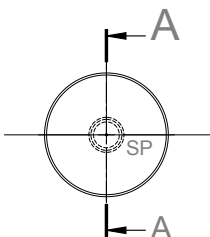
JIG PLATE/ EAR POLE OPTIONS

PTA AS-SEMBLY	A	B	C	D	E	F	G	H
0809PTA	11.875"	5"	12"	5.456"	4.996"	0.504"	0.75"	1.375"
1014PTA	15"	7.5"	11.875"	7.716"	6.996"	0.506"	1"	1.375"



SUPPORT PILLARS

PTA #	L
6140	2.5"
6141	3.0"
6142	3.5"
6143	4.0"
6144	4.5"
6145	5.0"
6146	6.0"

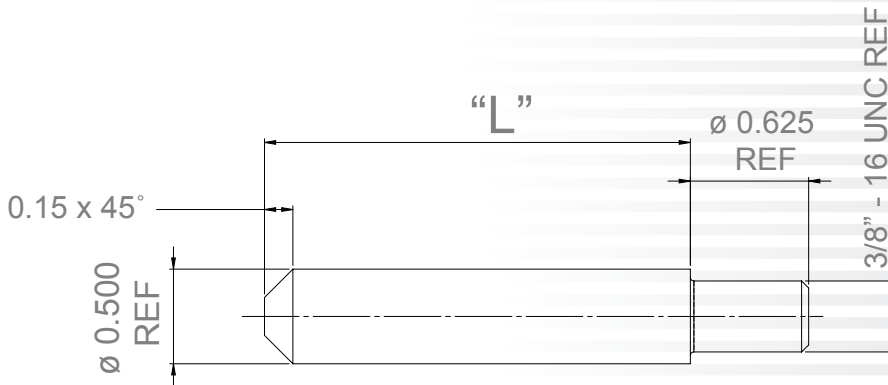


DME'S QC-PA - TECHNICAL SPECIFICATIONS

JIG PLATE, LOCATION PINS, SPRUE BUSHINGS & SUPPORT PILLARS

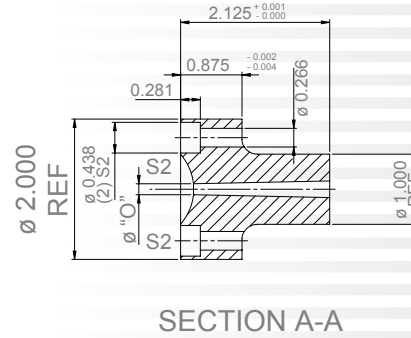
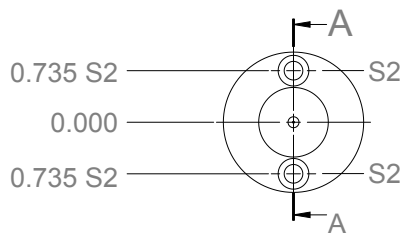
LOCATING PINS

PTA #	L
225PTA	2.25"
275PTA	2.75"
325PTA	3.25"
375PTA	3.75"
425PTA	4.25"
475PTA	4.75"
500PTA	5.0"



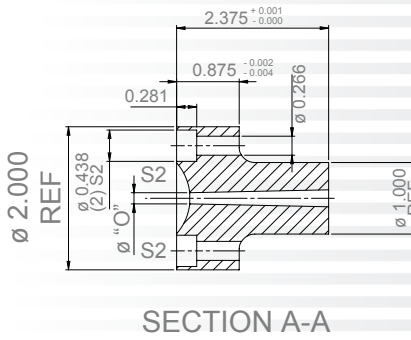
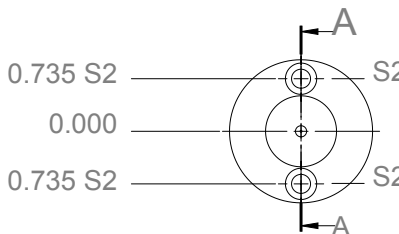
SPRUE BUSHING (0809 SERIES)

PTA #	0
B0353PTA	5/32"
B0373PTA	7/32"
B0393PTA	9/32"
B03113PTA	11/32"
425PTA	4.25"
475PTA	4.75"
500PTA	5.0"



SPRUE BUSHING (1014 SERIES)

PTA #	0
B0353PTAL	5/32"
B0373PTAL	7/32"
B0393PTAL	9/32"
B03113PTAL	11/32"
425PTA	4.25"
475PTA	4.75"
500PTA	5.0"



WHEN ORDERING Please Specify:

1. Prototype Adapter Size 1(0809 PTA) or Size 2 (1014 PTA). Contact Customer Service for purchasing replacements.
2. Specify length of Locating Pins: 2.25", 2.75", 3.25", 3.75", 4.25", 4.75", 5.0 inches
3. Specify length of Support Pillars: 2.50, 3.00, 3.50, 4.00, 4.50, 5.00 or 6.00 inches
4. Quantity

OPTIONAL - Value Added Service For Cavity & Cores

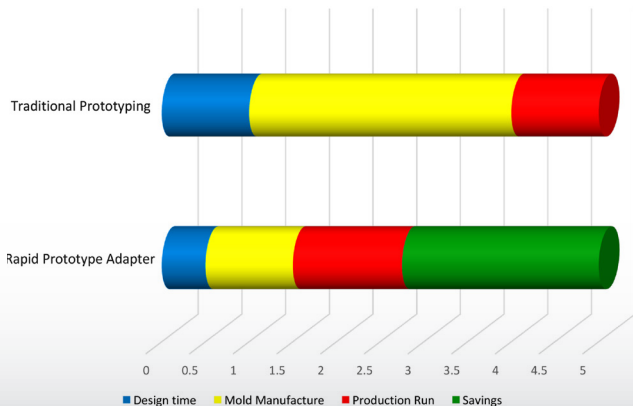
- In as short five days from customer design approval, Cavity & Core can be 3D printed and shipped
- Aid in the Resin Material Selection for the cavity and core

CHANGE IS GOOD!

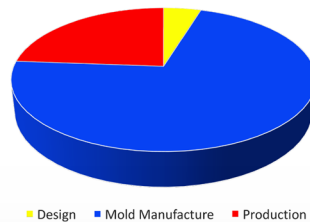
DME Rapid Prototype Adapter System is the newest add-on to our mud frame family of products. It enables any facility to convert to rapid prototyping in less time and at a fraction of the cost compared to current standard prototyping options.

Many production facilities already have clients that use rapid prototyping for fit, form and function testing prior to production runs. Now you too can have your slice of the pie by getting into prototyping as well.

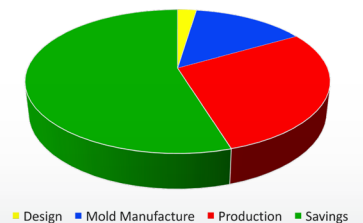
In many cases, prototype molds can run between \$15K and \$25K to manufacture and could take upward of 6 weeks to produce (depending on complexity). With DME Rapid Prototype Adapter system, you can be producing truly injected parts, ready for real world testing, in as little as 1.5 weeks and at a fraction of the cost, even as little as \$2.5K (after initial adapter plate purchase).



Traditional Prototyping Cost (\$)



DME Rapid Prototyping Cost (\$)



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