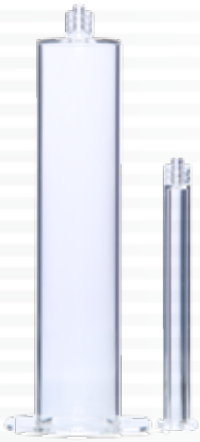
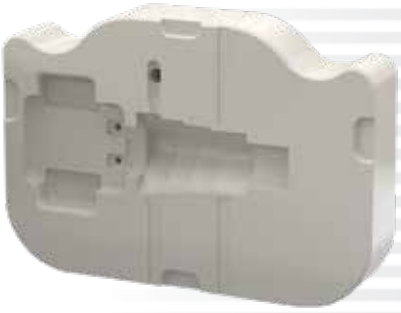
DME®

RAPID SUCCESS

Rapid Prototyping with the DME Quick-Change System

Cut prototype lead time up to **90%**
Prototype cost saving up to **70%**





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

MUD® DME® MASTER UNIT DIE

MEET DME'S QUICK-CHANGE PROTOTYPE ADAPTER!

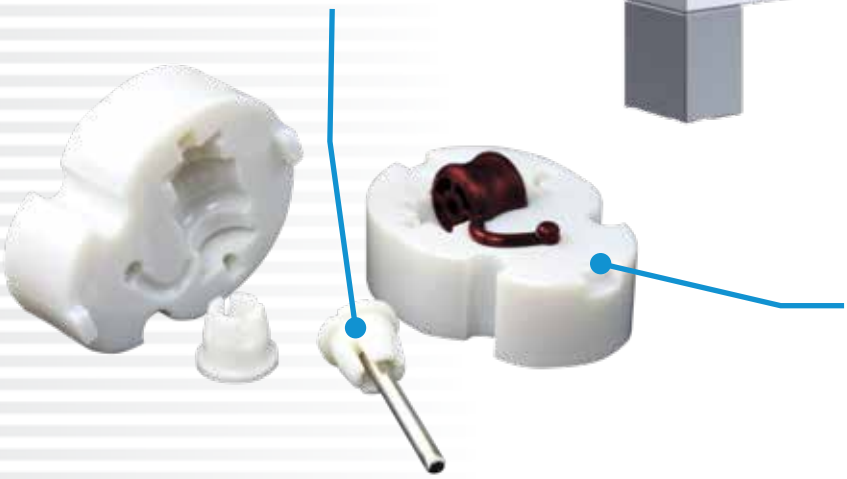
RAPID SUCCESS By Converting Your MUD® Mold Base To A Prototyping Base.

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 ideal for "real world" use. **Why 3D print your parts when you can 3D print your mold instead?**

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

Ear Plates – "Quick-Change" rapidly from production to prototyping. Prototype adapters are available in two sizes, 08/09 and 10/14.

Hand Load Components – Allow for advanced engineering and undercut solutions



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 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 quickly alternate between production to prototyping, when coupled with most quick-change mold base frames. The Rapid Prototype Adapter provides ultimate flexibility helping you manage you precious injection molding machine time.

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

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

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

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

Jig Plate complete with 3 Inlets & 3 Outlets so that, when running metal inserts, both the cavity and core can be cooled, while being able to utilize a single shut-off valve.

Sprue Bushings come in a variety of lengths to fit a mold's specific needs. (sold separately)

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
- 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
- Support pillars available in 8 standard lengths (1 set of 4 required.) *
- Leader pins/bushings
- Sprue bushing *
- Mold straps
- Eyebolts
- Multiple resins for cavity/cores
- Includes Pressure Plug (optional 1/4 NPT water fittings available)

*Note: Sold separately, not included with QC-PA Jig/Ear Plates

Todays global manufacturing industries are fast-paced with new product innovations occurring daily. Manufacturers today need partners who they can rely on for cost effective injection molding and prototyping services to support their dynamic projects.

INDUSTRIES COMMONLY REQUIRING RAPID PROTOTYPING:

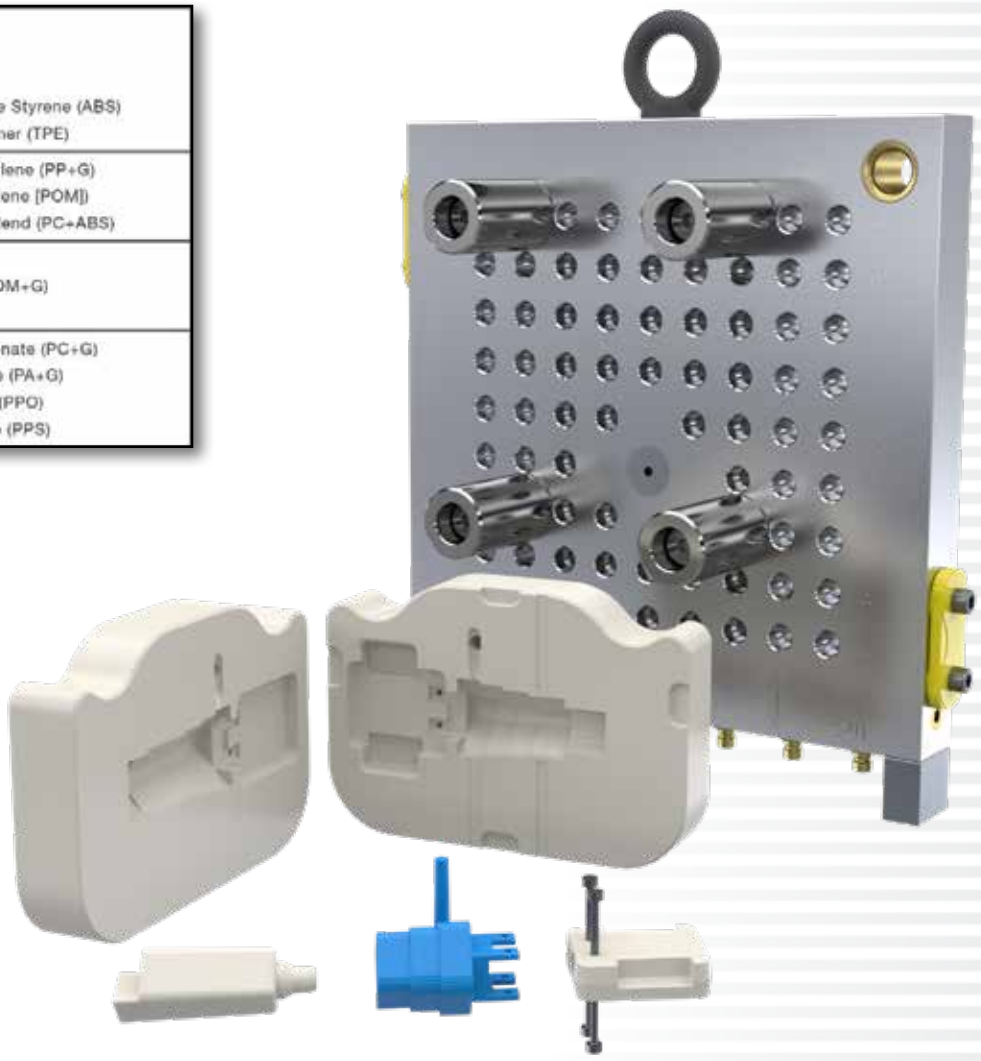
- Aerospace & UAV
- Automotive
- Communications
- Consumer Products
- Industrial
- Medical
- Product Development
- Robotics & Automation

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 Adapter 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)
C	• Polycarbonate (PC) • Glass-filled Acetal (POM+G) • Polyamide (PA)
D	• Glass-filled Polycarbonate (PC+G) • Glass-filled Polyamide (PA+G) • Polyphenylene Oxide (PPO) • Polyphenylene Sulfide (PPS)



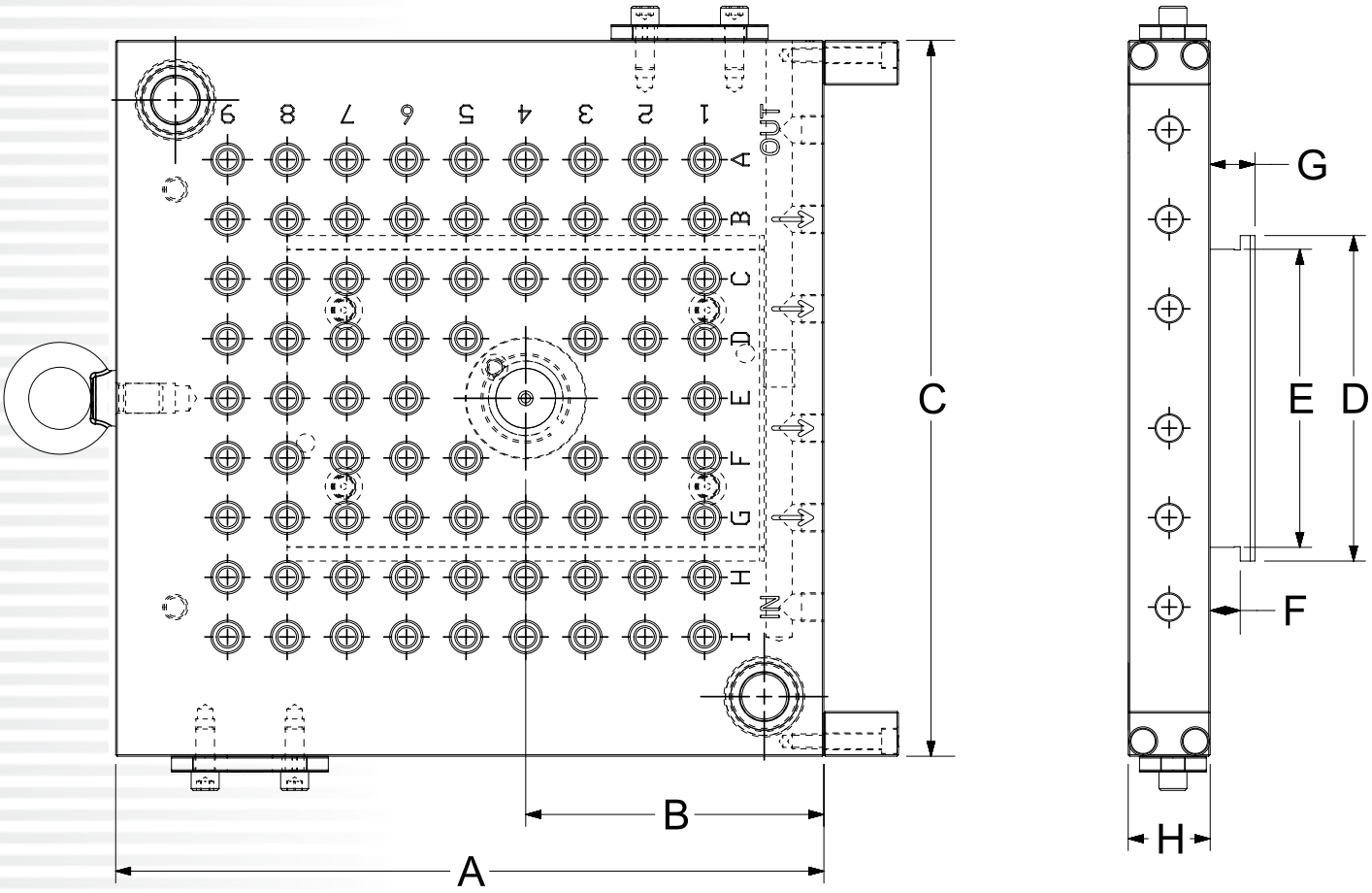
To request a quote for DME to 3D print your prototype mold please email your 3D part step or x_t model to: dme_mech_eng@dme.net

DME'S QC-PA - TECHNICAL SPECIFICATIONS

JIG PLATES & SUPPORT PILLARS

JIG PLATE/ EAR PLATE OPTIONS

ITEM NUMBER	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"



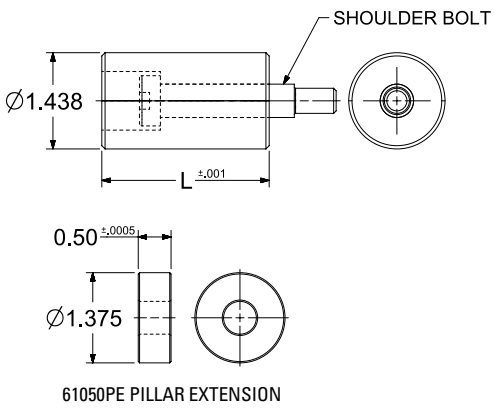
SUPPORT PILLARS & PILLAR EXTENSIONS

Sold in sets of 4, 1 set required.

(sold separately, not included with QC-PA Jig/Ear Plates)

ITEM NUMBER	DESCRIPTION	OVERALL LENGTH	BOLT SIZE	BOLT ITEM NO.
6125PTA	(4) Support Pillars & Bolts	2.50	1/2 x 2.00	122SB
6130PTA	(4) Support Pillars, Bolts & Extensions	3.00	1/2 x 2.50	12212SB
6135PTA	(4) Support Pillars & Bolts	3.50	1/2 x 3.00	123SB
6140PTA	(4) Support Pillars, Bolts & Extensions	4.00	1/2 x 3.50	12312SB
6145PTA	(4) Support Pillars & Bolts	4.50	1/2 x 4.00	124SB
6150PTA	(4) Support Pillars, Bolts & Extensions	5.00	1/2 x 4.50	12412SB
6155PTA	(4) Support Pillars & Bolts	5.50	1/2 x 5.00	125SB
6160PTA-13*	(4) Support Pillars, Bolts & Extensions	6.00	1/2 x 5.00	125SB
61050PE	(1) Pillar Extension	.50	N/A	N/A

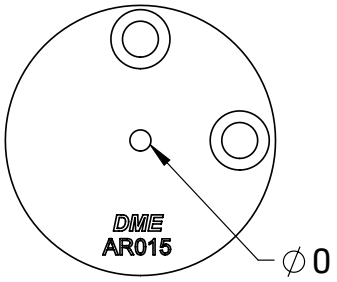
*1.375 counterbore

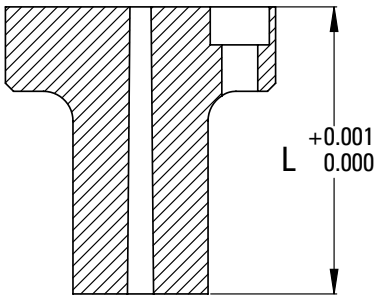


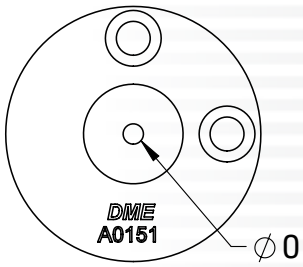
61050PE PILLAR EXTENSION

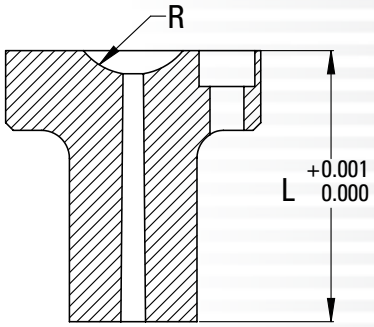
DME'S QC-PA - TECHNICAL SPECIFICATIONS

SPRUE BUSHINGS (sold separately, not included with QC-PA Jig/Ear Plates)









SPRUE BUSHING (AR STYLE)

SERIES	ITEM NUMBER	L	ORIFICE (O)
0809	AR015PTA	2.125 +0.001 -0.000	5/32"
	AR017PTA		7/32"
	AR019PTA *		9/32"
	AR0111PTA *		11/32"
1014	AR025PTAL	2.375 +0.001 -0.000	5/32"
	AR027PTAL		7/32"
	AR029PTAL *		9/32"
	AR0211PTAL *		11/32"

SPRUE BUSHING (A STYLE)

SERIES	L	ORIFICE (O)	3/4" RADIUS	1/2" RADIUS
0809	2.125 +0.001 -0.000	5/32"	A0153PTA	A0151PTA
		7/32"	A0173PTA	A0171PTA
		9/32"	A0193PTA*	A0191PTA*
		11/32"	A01113PTA*	A01111PTA*
1014	2.375 +0.001 -0.000	5/32"	A0253PTAL	A0251PTAL
		7/32"	A0273PTAL	A0271PTAL
		9/32"	A0293PTAL*	A0291PTAL*
		11/32"	A02113PTAL*	A02111PTAL*

* available via special order only

WHEN ORDERING Please Specify:

1. Prototype Adapter Size 1 (0809 PTA) or Size 2 (1014 PTA).
2. Sprue Bushing (sold separately)
3. Support Pillar length (sold separately):
   2.5", 3.5", 4.5" & 5.5" (standard supplied lengths)
   3", 4", 5" & 6" (includes usage of 61050PE Pillar Extension)
   (reference Support Pillar Chart on previous page)

OPTIONAL - Value Added Service For Cavity & Cores

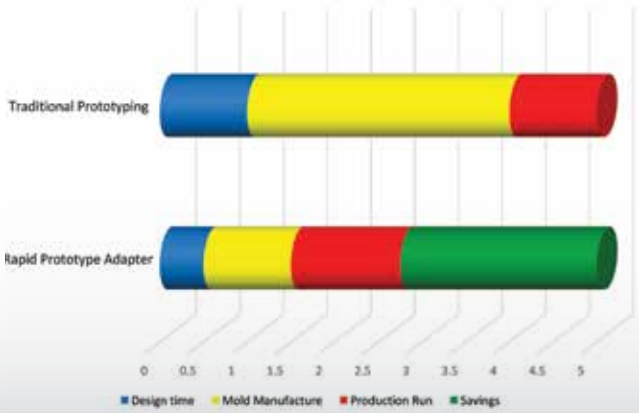
- In as little as five days from customer design approval, Cavity & Core can be 3D printed and shipped
- Aid in the Resin Material Selection for the cavity and core

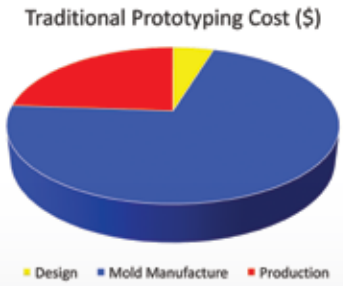
CHANGE IS GOOD!

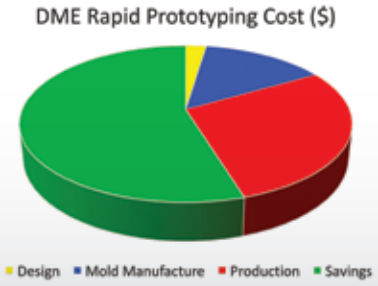
DME Rapid Prototype Adapter System is the newest add-on to our MUD® frame family of products. It enables any facility to convert to rapid prototyping in less time and at a fraction of the cost compared to current standard prototyping options.

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 the 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).







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