

ProtoQuote®

Injection Molding Quote for Prototyping

Prepared for: **SoftEgg**
 Process: **Plastic Injection Molding**
 Quote Number: **725331**
 Quote Date: **11/4/2019**
 Part Name: **Stylish Belt Synth V4 Top rev 11/3/19**
 Extents: **199.803 mm x 123.67 mm x 18.385 mm**



Thank you for the opportunity to quote your parts. We look forward to working with you on this project. If you have any questions, please contact us at 877.479.3680.

① Confirm or Modify Specifications and Review Pricing

Cavities:	1 cavity
A-side (green) finish:	PM-F1 (Low-cosmetic - most toolmarks removed)
B-side (blue) finish:	PM-F0 (Non-cosmetic - finish to Protomold discretion)
Tooling Price: \$5,165.00	
Sample Quantity:	25
Sample Parts 25 @ \$3.66: \$91.50	
Material:	ABS, Black (Lustran 433-904000)
Change Material Color	
The selected material is not compatible with added colorants	
Manufacturing Time:	Sample parts ship in 15 business days (standard price)

Total USD: \$5,256.50
[currency calculator](#)

Production Parts Calculator

This calculator shows estimated piece part pricing for future production orders.

Qty 1,000:	\$3.66 ea	Custom Lot Size Pricing	
Qty 3,500:	\$3.49 ea	Enter Lot Size:	5000
Qty 5,000:	\$3.32 ea	Qty 5000:	\$3.32 ea
Qty 20,000:	\$3.30 ea		



Production pricing in USD based on the material selected: ABS, Black (Lustran 433-904000)

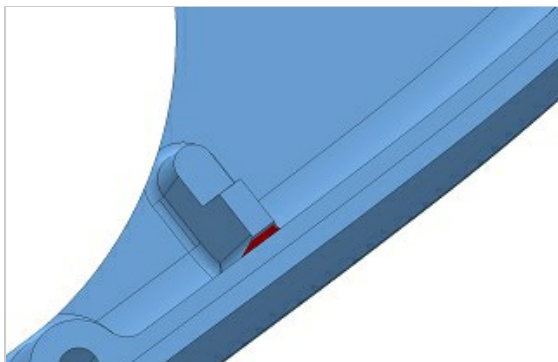
Add \$500.00 setup charge to each lot of production parts.

② Manufacturability Analysis (2D View)

Required Changes (3)

Required Changes

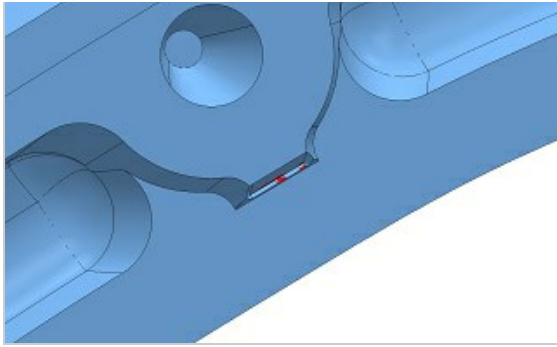
The following illustrations indicate changes to the model which are required for compatibility with our injection molding process.



1. There is a narrow slot between the faces shown in red. This will result in a thin knife-edge in the mold, which cannot be produced by our injection molding process. In order to produce this part the slot needs to be at least 0.040" (1mm) wide at the base. A new model is required to address this issue. For details, clarification, options, or alternatives, please contact an Application Engineer at customerservice@protolabs.com or 877.479.3680.

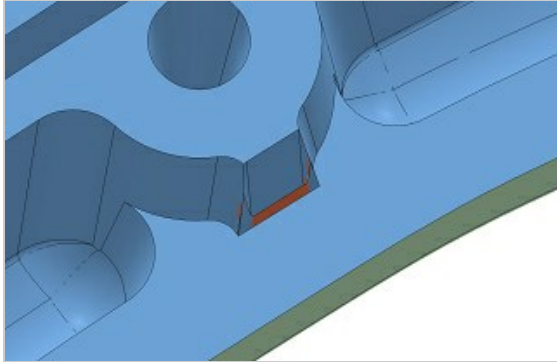
An updated file is needed to make this part.

2. There is a narrow slot between the faces shown in red. This will



result in a thin knife-edge in the mold, which cannot be produced by our injection molding process. In order to produce this part the slot needs to be at least 0.040" (1mm) wide at the base. A new model is required to address this issue. For details, clarification, options, or alternatives, please contact an Application Engineer at customerservice@protolabs.com or 877.479.3680.

An updated file is needed to make this part.



3. The part has thin features that need to be increased in thickness to the minimum thickness as indicated by the color code below:

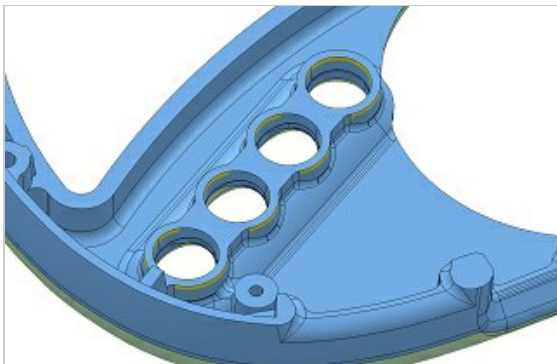
■ minimum thickness = 0.66 mm

An updated file is needed to make this part.

Moldability Advisory (9)

Moldability Advisory

The following illustrations indicate part design considerations for optimal performance in the injection molding process.



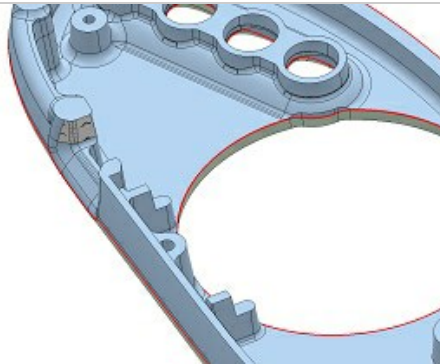
1. Yellow color coding indicates areas where part thickness is significantly less than nominal. These areas may have fill problems, weak weld-lines, through-holes or significant texture variations. See the [Recommended Wall Thickness by Resin](#) page and the [Uniform Wall Thickness](#) page for guidelines. For details, clarification, options, or alternatives, please contact an [Application Engineer](#) at customerservice@protolabs.com or call 877.479.3680.



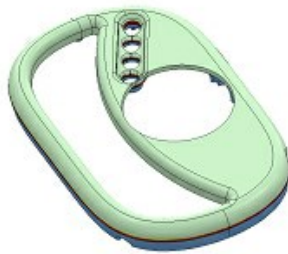
2. Dark blue color coding indicates areas where part thickness is significantly greater than nominal. Sink marks, voids, and excessive shrink are possible in these areas. Warp of these and other areas of the part may occur. See the [Recommended Wall Thicknesses by Resin Types](#) page and [Uniform Wall Thickness](#) page for design guidelines. For details, clarification, options, or alternatives, please contact an [Application Engineer](#) at customerservice@protolabs.com or call 877-479-3680.



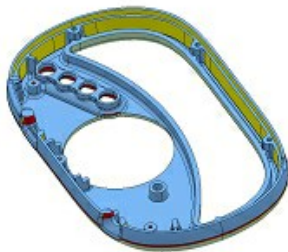
3. Dark blue color coding indicates areas where part thickness is significantly greater than nominal. Sink marks, voids, and excessive shrink are possible in these areas. Warp of these and other areas of the part may occur. See the [Recommended Wall Thicknesses by Resin Types](#) page and [Uniform Wall Thickness](#) page for design guidelines. For details, clarification, options, or alternatives, please contact an [Application Engineer](#) at customerservice@protolabs.com or call 877-479-3680.



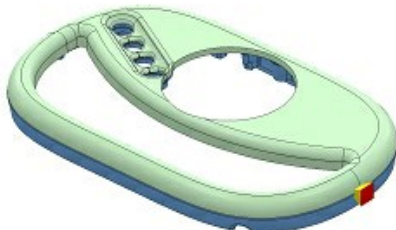
4. The faces with arrows currently have no draft. Draft is recommended on all injection molded parts. We recommend adding 0.5 degree of draft if possible. Protolabs will try to make your part as-is, without draft in this area, but there may be issues such as drag marks, distortion from ejection stresses, or other effects, any of which may cause delays. For details, clarification, options, or alternatives, please contact an Application Engineer at customerservice@protolabs.com or 877.479.3680.



5. If you choose a textured finish on your part: PM-T1 (light bead blast texture) generally requires at least 3 degrees of draft, and PM-T2 (medium bead blast texture) generally requires at least 5 degrees of draft. Faces colored red have a draft of less than 3 degrees, and faces colored yellow have a draft of 3-5 degrees. If you do want a textured finish on these faces, we recommend adding additional draft to avoid possible drag marks, cosmetic flaws, missing texture, and to assist in proper ejection of the part.



6. If you choose a textured finish on your part: PM-T1 (light bead blast texture) generally requires at least 3 degrees of draft, and PM-T2 (medium bead blast texture) generally requires at least 5 degrees of draft. Faces colored red have a draft of less than 3 degrees, and faces colored yellow have a draft of 3-5 degrees. If you do want a textured finish on these faces, we recommend adding additional draft to avoid possible drag marks, cosmetic flaws, missing texture, and to assist in proper ejection of the part.

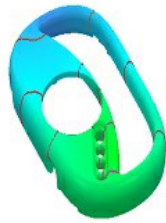


7. Your part is gated on a curved surface using a tab gate (highlighted in yellow), which will be trimmed after molding tangent to the gating surface, leaving a small vestige. If you have a mating part, please verify gate location alignment with your mating part. If you have questions or concerns about the gate type or location, please contact an Application Engineer at 877-479-3680 to discuss or change.

8. Fill Pressure OK.

6,000 psi.
Number of Gates: 1.
Gate Type: Tab.

This animation displays our flow analysis for your part.



This simulation was run with the material **PC - Makrolon 2458**. The various colors represent the pressure field as indicated on the scale.

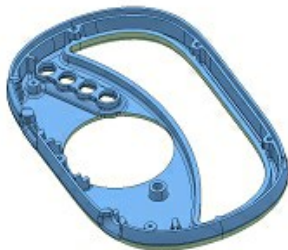


9. Proposed ejector layout. Yellow cylinders represent ejector pins. For details, clarification, options, or alternatives, please contact an Application Engineer at customerservice@protolabs.com or 877-479-3680.

Other Info (2)

Other Info

The following illustrations indicate general information about how your part will be molded and areas in which the molded part will differ from the geometry of the CAD model due to the milling process used in mold manufacture.

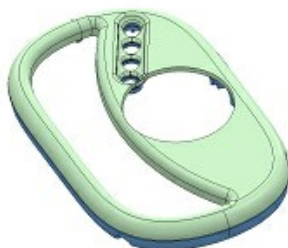


1. Corners that will have a radius due to the milling process are color coded as follows:

- radius = 0.28 mm
- radius = 0.40 mm
- radius = 0.80 mm
- radius = 1.19 mm
- radius = 1.59 mm

unformed features

Note: This part has features that will not be fully formed (see dark red areas).



2. Corners that will have a radius due to the milling process are color coded as follows:

- radius = 0.28 mm
- radius = 1.59 mm


unformed features

Note: This part has features that will not be fully formed (see dark red areas).

Order Pricing

Specifications Selected

Cavities	1	Tooling Price:	\$5,165.00
A-side (green) finish:	PM-F1	Sample Parts 25 @ \$3.66:	\$91.50
B-side (blue) finish:	PM-F0		
Sample Quantity:	25		
Manufacturing Time:	Sample parts ship in 15 business days (standard price)		
Material:	ABS, Black (Lustran 433-904000)		

 To continue, see required changes in the section above and upload a new model.

Add to Cart

[Upload a Revised Model](#)

Total USD: **\$5,256.50**
[currency calculator](#)

Notes

- Customers are responsible for ensuring that the properties and performance of the resin selected meet the requirements of their application.
- There is no provision within our injection molding process to make the tool "steel safe." Since dimensional tolerances are highly dependent on the material selected and on the part design, we are not able to guarantee that a specific tolerance will be met.
- A-side shown in green. B-side (ejection side) shown in blue.
- The expected tolerance in a well designed part in ABS, Black (Lustran 433-904000) is +/- (0.08 mm + 0.002 mm/mm).

Terms and Conditions — ProtoQuote Interactive Quote

Terms and Conditions of Sale – Proto Labs, Inc.

Seller. As used herein, "Seller" means Proto Labs, Inc., a Minnesota corporation.

Proto Labs Quotes. Proto Labs provides a Quote for the Buyer's part(s) based on a 3D CAD model submitted by Buyer to Seller. Any change to the 3D CAD model requires an updated Quote. Quotes are valid for 30 days, after which pricing may change without notice. Seller reserves the right to correct clerical and other typographical errors in any quotation.

Offer and Contract Acceptance. These Terms and Conditions of Sale, together with a valid Quote, form a legally binding agreement (the "Agreement") and contains the entire understanding between Buyer and Seller for the goods and services provided by Seller and supersede any and all other agreements, representations and understandings of the parties, if any, whether oral or in writing. Buyer is deemed to have accepted this Agreement when it accepts a Quote or issues a purchase order or other writing expressing the Buyer's intent to proceed with the Agreement. This Agreement will govern any orders Seller accepts from Buyer and/or Buyer's authorized purchasers based on the Quote provided to Buyer. The terms and conditions contained herein shall be the only terms that shall govern the purchase and sale of the goods and services between Buyer and Seller, and no other terms and conditions shall apply and are hereby expressly excluded, including, without limitation, any terms contained in a request for quotation, purchase order, website, or elsewhere. The only additional terms in a request for quotation, purchase order, website or other writing that shall apply, if accepted by Seller, shall be terms regarding the description, price, quantity, and shipping destination for goods produced, and any and all other terms and conditions shall be excluded and deemed inapplicable. After Seller accepts an order, Buyer is responsible for any delivery delays or charges, in addition to the original price, due to a Buyer requested change that is agreed to in writing by Seller.

Termination for Convenience. Buyer may terminate an order in whole or in part at any time by written notice to customerservice@protolabs.com, effective upon receipt by Seller. In the event of termination, Seller reserves the right to invoice Buyer for all goods produced or services performed prior to receipt of notice of termination as well as for any resin purchased to make Buyer's parts which Seller is unable to return. This section shall not limit or affect the Buyer's right to cancel this order for breach by Seller.

Delivery; Quantity; Title. Any stated delivery time represents Seller's intended or typical delivery time, but actual delivery times may vary. Seller reserves the right to limit quantities at any time. Partial shipments may be delivered to Buyer. All parts are shipped FCA (Incoterms 2010) at Seller's facilities. Title passes to the Buyer at the time and place of delivery to the carrier.

Price and Terms of Payment. All prices are quoted and payments shall be made in U.S. Dollars and are exclusive of freight, shipping, special packaging or handling, duties, and unless specifically stated, sales, excise, use or other taxes arising in connection with this transaction (other than taxes based solely on Seller's taxable income). No discounts are authorized. Payment may be made by Visa, MasterCard, Discover, American Express, or a form of prepayment acceptable to Seller. Upon credit approval, goods or services may be invoiced and all sums are due and payable according to the terms of the invoice. To the extent Buyer desires Seller to present invoices or other information electronically via Buyer's or a third party's electronic payment website, any costs associated with such access will be borne by Buyer.

Nonconforming Goods. Buyer shall inspect all goods upon delivery by Seller, and should any of the goods be nonconforming goods, Buyer must notify Seller, in writing, within ninety (90) days of delivery of the goods describing the nature of any nonconformity. Seller shall have the right and option to repair or replace any goods agreed between the parties to be nonconforming. Seller shall not have any obligation to repair, replace or otherwise compensate Buyer for nonconforming goods if Buyer fails to notify Seller in writing that goods are nonconforming within ninety (90) days of Seller's delivery of the goods.

Warranties. Seller assumes no responsibility for the design of the goods that are the subject of this transaction. To the extent Seller's personnel recommend design modifications or provide design analysis, simulation or advice, they do so only to help meet the requirements of Seller's own manufacturing process. The Buyer retains sole legal responsibility for the design specifications and performance of the goods that are the subject of this transaction. Buyer is solely responsible for ensuring the goods and services purchased from Seller meet applicable regulatory requirements. The Buyer

represents and warrants to Seller that no information furnished or to be furnished by the Buyer to Seller constitutes information classified by the U.S. federal government as confidential, secret or top secret or similar designation by any international government.

SELLER MAKES NO REPRESENTATION OR WARRANTY, WHETHER EXPRESS OR IMPLIED, OF ANY KIND WHATSOEVER WITH RESPECT TO ANY GOODS OR SERVICES, INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT.

Without limiting the generality of the foregoing, Seller assumes no responsibility or liability for the selection of any materials for the goods that are the subject of this transaction. The Buyer is solely responsible for ensuring that materials selected for goods to be manufactured by Seller meet any applicable regulatory requirements or specifications including but not limited to Directive -2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS Directive) together with any national legislation implementing such Directive, ISO, FDA, UL, CSA, CE, TUV, FCC, NSF, and USP. Any statements made by Seller personnel or specifications provided by Seller regarding materials should be verified by the Buyer with the manufacturer of that material.

Indemnification. Buyer agrees to defend, indemnify and hold harmless Seller (and its employees, representatives and agents) from and against all claims, liabilities, losses, damages, penalties, fines and sanctions of any kind (including, without limitation, interest, attorneys' fees and expenses, customs duties, fines, taxes, penalties or any other governmental sanctions of any kind) resulting from or arising out of Buyer's use of Seller's goods or services, a breach of any provision of this Agreement or any third party claim for infringement of patent rights, trademark, copyrights or misuse of trade secret information.

Force Majeure. Seller shall not be liable for any failure to perform under this Agreement if such failure or delay is caused by acts of God, fire, storm, strikes, blackouts, labor difficulties, riots, inability to obtain materials, equipment, labor or transportation, governmental restrictions, or any other event beyond Seller's reasonable control. In the event of any shortage of raw materials or other supplies, Seller may allocate materials and supplies among its buyers in such manner as Seller may determine in its sole discretion, and shall have no liability to the Buyer on account of any delay or cancellation on account thereof.

Buyer-Supplied Materials – Injection Molding. If Seller agrees to use resin supplied by the Buyer for injection molding, the Buyer shall be solely responsible for supplying and delivering such materials in a timely manner at no cost or expense to Seller, of sufficient quality and in sufficient quantity (including allowances for loss, waste, or scrap that may occur for any reason) as Seller deems necessary to complete its obligations. Seller will not return waste, scrap (including sprues and runners) or de minimis amounts of material. Seller shall not be liable for, and the Buyer shall be obligated to pay any previously negotiated delivery premiums notwithstanding, any failure or delay in delivering any goods to be provided hereunder if such failure or delay is caused by the Buyer's failure to supply and deliver such materials in a timely manner or of such quality or in such quantity as Seller deems necessary. Seller's Buyer-supplied material storage policy is such that after one year of inactivity, Seller may destroy the Buyer-supplied material, in its discretion.

Service Levels – Injection Molding. Each Quote for injection molding services indicates a Service Level that applies to that Quote. If the Quote indicates a "Prototyping" Service Level, all Custom Tooling and Proprietary Components shall be and remain the property of the Seller. However, Seller shall not use Custom Tooling in the production of goods for any other buyer of Seller without the Buyer's express permission. As long as Seller is making parts for Buyer in Seller's facility, Seller will maintain Buyer's Prototyping Tooling to guarantee production of at least two thousand parts ("shots") produced. Subject to the Prototyping Tooling storage policy below, Seller will, in its discretion, repair or replace worn or damaged Tooling at Seller's expense until at least two thousand parts have been produced. Seller's Prototyping Tooling storage policy is such that after an eighteen (18) month period of inactivity on the Prototyping Tooling, Seller may destroy the Prototyping Tooling, in its discretion. The Prototyping Tooling guarantee does not apply to projects accepted on a "best effort" basis as agreed between the parties.

If the Quote indicates an "On-Demand Manufacturing" Service Level, all Custom Tooling shall be the property of the Buyer, however reusable Proprietary Components will remain the property of the Seller and all Custom Tooling will remain at Seller's production facility. As long as Seller is making parts for Buyer in Seller's facility, Seller will guarantee Buyer's On-Demand Manufacturing Tooling for the life of the project with no limitation on the number of parts produced. Subject to the On-Demand Manufacturing Tooling storage policy below, Seller will, in its discretion, repair or replace worn or damaged Tooling at Seller's expense with no limitation on the number of parts produced. Seller's On-Demand Manufacturing Tooling storage policy is such that after a three-year period of inactivity on the On-Demand Manufacturing Tooling, Seller may destroy the On-Demand Manufacturing Tooling, in its discretion. The On-Demand Manufacturing Tooling guarantee does not apply to projects accepted on a "best effort" basis as agreed between the parties.

As used in this Agreement, "Custom Tooling" means tooling and molds developed specifically for the Buyer such as an A-side (cavity) block or insert, a B-side (core) block or insert, cam faces if the Tooling requires side actions, and inserts if the Tooling requires inserts. "Proprietary Components" means all proprietary or reusable components developed by Seller including fixturing, B-Side rails, pillars, insert carrier frames, cam sliders and angle pins, cooling jackets, heating jackets, alignment gimbals, cross-slides and vernier adjusters, setup jigs, sprue bushings, mold locks, reconfigurable ejectors, ejector pin plates and custom cut ejector pins, ejector clamps, shims, wedges, screws and springs or other reusable parts needed to make the Tooling ready for production. Due to the proprietary nature of Seller's process, Tooling is generally not compatible with or transferable to other equipment.

On-Time Expedited Delivery Guarantee. If Buyer selects an expedited quick-turn option, Seller guarantees the on-time delivery for the date selected. If Seller is unable to meet the selected date, Seller will refund a prorated portion of the expedite fee to reflect the delivery date actually achieved. For instance, for an injection molding order, if Buyer selects a quick-turn expedite of five business days, but the order actually ships in seven business days, Seller will refund the difference between the 5-day expedite fee and the achieved 7-day expedite fee. The On-Time Expedited Delivery Guarantee does not apply to standard lead times, projects accepted on a "best effort" basis, or limited availability services.

Buyer Intellectual Property. Buyer shall retain sole ownership of the copyright in files, all text, illustrations, software files and other materials provided by Buyer to Seller as well as of any deliverables, designs, including modifications or derivative works thereof, that may be produced for Buyer during the course of Seller's performance of services.

Seller Intellectual Property. Seller retains sole ownership in all proprietary software, processes, and procedures developed by Seller for the quoting, analysis, design, automation, and manufacturing of machined parts, injection molds, injection molded parts, and 3D printed parts. Seller retains ownership of the copyright in all text, illustrations or other materials provided by Seller to Buyer in a Quote. Buyer will not, without prior written approval of Seller (which may be withheld for any reason), remove any of Seller's markings or change Seller's Intellectual Property in any way.

Federal Government Contracts. Seller is a Large Business, registered in the System for Award Management (SAM). If this transaction is a subcontract under a federal government contract or subcontract, the Buyer and Seller agree that the goods and services provided by Seller to the Buyer under this agreement constitute "commercial items" as defined in FAR 2.101 (48 CFR § 2.101). In this regard Seller warrants that the goods and services provided under this agreement are priced at the same rate and in the same manner as Seller's comparable commercial agreements for similar goods and services and that such goods and services are sold in the commercial marketplace, subject to modifications of a type customarily available in the commercial marketplace.

Country of Origin. Seller makes no country of origin certification under this Agreement unless specifically agreed to in writing. Seller specifically disclaims any "passive" certifications included in any of Buyer's documents or communications related to this Agreement.

Confidentiality. "Confidential Information" means any information that Buyer discloses to the Seller that is proprietary to the Buyer and not generally known to the public. The Seller will not use any Confidential Information for any purpose except for the purposes of carrying out its obligations pursuant to this Agreement. The Seller will use the same degree of care (but no less than a reasonable degree of care) to protect the secrecy of and avoid disclosure and unauthorized use of the Confidential Information as the Seller employs with respect to its own confidential and proprietary information. Upon Buyer's written request, the Seller will destroy all documents containing or representing Confidential Information and all copies thereof, and erase any such Confidential Information from the Seller's computer systems except electronic copies that are electronically archived and not readily accessible. If requested by Buyer, Seller will provide written confirmation of such return or destruction and erasure to Buyer.

Export Compliance. Buyer and Seller will comply with all applicable export, restrictions and regulations of any U.S. agency or authority including but not limited to the Export Administration Regulations ("EAR") administered by the U.S. Department of Commerce, International Traffic in Arms Regulations ("ITAR") under the U.S. Department of State, and embargo controls administered by the U.S. Department of the Treasury's Office of Foreign Asset Controls ("OFAC") with respect to the goods or services that are subject to this Agreement. In order for Seller to conduct appropriate export control checks, the Buyer agrees to identify any export controlled (e.g., ITAR) goods in writing to Seller by the time Buyer accepts a quotation and to provide all pertinent information pertaining to the particular end Buyer, destination and intended use of goods. Seller reserves the right to stop shipping or providing goods if Seller has reason to believe that any shipment or sale of goods may violate any export control law.

Prohibited Purposes. Buyer warrants that the goods that are the subject of this transaction will not be implanted in a human body and are not subject to FAA inspection. Buyer certifies that its designs (e.g., 3D CAD models) submitted to Seller and the manufacture and delivery of goods according to the Buyer's design will not yield goods that are in violation of any federal firearms laws.

LIMITATION OF DAMAGES. IN NO EVENT SHALL SELLER BE LIABLE FOR ANY INCIDENTAL, INDIRECT, CONSEQUENTIAL OR PUNITIVE DAMAGES OF ANY KIND, WHETHER FOR BREACH OF ANY WARRANTY, FOR BREACH OF ANY OTHER TERM OR CONDITION, FOR NEGLIGENCE, ON THE BASIS OF STRICT LIABILITY, OR OTHERWISE. BUYER ACKNOWLEDGES THAT THE ESTIMATED AND ACTUAL FEES AND CHARGES PAID FOR THE SERVICES REFLECT THIS LIMITATION OF LIABILITY AND ALLOCATION OF RISK. THE TOTAL LIABILITY OF SELLER OR ITS SUPPLIERS TO BUYER UNDER THIS AGREEMENT SHALL IN NO EVENT EXCEED THE TOTAL SUMS PAID BY BUYER TO SELLER FOR THE ORDER GIVING RISE THE LIABILITY.

Patents. The goods and/or services that are the subject of this quote/order may be quoted and/or produced under one or more of the following US Patents: 6,701,200; 6,836,699; 7,590,466; 7,496,528; 7,123,986; 7,089,082; 7,630,783; 7,299,101; 7,574,339; 7,836,573; 7,840,443; 7,957,830; 8,140,401; 8,295,971; 8,239,284; 8,745,517.

Miscellaneous. The Agreement shall be governed by and construed in accordance with the laws of the State of Minnesota without regard to principles of conflict of law. The United Nations Convention on Contracts for the International Sale of Goods shall not apply to this transaction. Any suit, action or other legal proceeding arising out of or relating to this transaction shall be brought in a court of record in Hennepin County, Minnesota or in the courts of the United States located in such county. Seller and the Buyer each consent to the jurisdiction of each such court in any suit, action or proceeding, and waive any objection which it may have to the laying of venue of any such suit, action or proceeding in any such courts and any claim that any such suit, action or proceeding has been brought in an inconvenient forum.

English Language. All documents, notices and legal proceedings executed, given or instituted pursuant to or relating directly hereto shall be in the English language, and the meaning of all words and phrases of this offer shall be defined, construed and interpreted in the English language.

Proto Labs Rev 06-2017

[Refresh data.](#)

Leave a Message