Unifabs Technical Standards - Revision: 02. Dated 01/06/2022

Section	Area
1	**Enquiry/Order**
1.1	Unless stated, we will use the most cost effective method of manufacture which could be punch or laser cut. If a certain process is detrimental to the part, please advise us at enquiry
1.2	Any order given verbally will not be processed until confirmed in writing
1.3	Quotations may be produced against samples/templates. However, our interpretation will be forwarded in PDF format to gain written approval before manufacture
2	**CAD & Drawings**
2.1	Unless stated, we will assume drawings are shown in 3rd angle projection
2.2	Electronic formats that can be used by Unifabs are; Solidworks (.sldprt, sldasm, slddrw), DWG (.dwg), DXF (.dxf), STEP (.stp, .prt)
2.3	If none of the above formats are available, a design/drawing charge may be applied (this will be stated on our quotation)
2.4	Where CAD and PDFs are supplied, the CAD file will always be used as the master so, if they are different, this is our customer's responsibility
2.5	CAD files must be supplied at 1:1 scale. Where this is not possible, Unifabs must be notified
2.6	Hand drawings can be accepted although our interpretation will be sent for approval, prior to manufacture
2.7	Unifabs must be made aware of any revisions to drawings, following the enquiry
2.8	Any components from brushed material must have the grain direction shown on the drawing
2.9	Any components from tread plate/durbar to have the patterned face identified
2.10	Any patterned or tread plate material must have the patterned face stated on the drawing
2.11	If there is an 'A' Face required, please show this on your drawing
3	**Material**
3.1	All care will be taken to protect both faces of material, however, due to processing, some marks/blemishes may be visible
3.2	Stainless and aluminium will generally be processed with coating on one face and will remain on the component. If coating is not needed, please advise us of this at enquiry
3.3	Stainless and aluminium may be subjected to cross contamination as common tooling/slats are used on laser, punch, pressbrakes, drilling etc
3.4	All deliveries of free issue material must be accompanied by a delivery note stating the grade, thickness and quantity
3.5	Where possible, we would like 24 hours notice of any incoming deliveries
3.6	Deliveries of material must not exceed 1tonne packs
3.7	We can not process free issue material smaller than 1m square
3.8	If poor quality material is supplied (rusty, marked etc) this will be processed at your risk and may affect the final finish of a product. Rust can also hinder the cut quality of laser cut parts
3.9	Free issue material is processed at the Customers risk and Unifabs will only be held liable for processing costs
3.10	Material will only be held for 30 days following order completion. If material is required to be delivered back, this may incurr additional delivery charges
4	**Processing**
4.1	**Punch**
4.1.1	A 0.5mm tag will be present. If this needs removing, please inform us at enquiry stage
4.1.2	Sharp edges created by the punching process will be present
4.1.3	De-burring is not included in prices as standard. If this is required, please make us aware at quotation stage
4.1.4	the punching process does mark the back face of the material. Please advise if an 'A' face is required
4.1.5	Witness marks from the punch tools may be visible

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4.1.6	When punching holes in material >3mm, the bottom of the hole can be larger than the top
4.2	**Laser Cutting**
4.2.1	Parts cut with coating on may leave a slight residue around the cut edge once processed
4.2.2	Material can only be profiled with coating on the top face
4.2.3	Anti spatter may be used to aide cutting but can leave a slight oily residue
4.2.4	Long components with narrow part widths are liable to bow/distort due to heat build up
4.2.5	Aluminium >3mm is likely to create a burred cut edge. Please inform us at enquiry stage if this needs removing
4.2.6	Polycoating may become detached from small components due to the high pressure assist gas used. If this is the case, we can not guarantee the 'A' face will be mark free
4.2.7	A small laser tag may be present on parts. If this needs removing, please inform us at enquiry stage
4.3	**Forming/Bending**
4.3.1	Witness/tooling marks may be visible
4.3.2	If handed parts are required, please inform us of any 'A' face required
4.3.3	Where holes and slots are positioned near to bend lines they can pull or distort when folded. This is our customer's responsibility and, if the design needs changing to reduce this,
4.4	**Sawing**
4.4.1	We have no control of the seam size or position of the seam on box section
4.4.2	Internal deburring of sawn box section is not standard. Please advise if this is required at enquiry stage
4.5	**Drilling, tapping and countersinking**
4.5.1	The above operations may create a raised burr
4.5.2	when countersinking, we will work to the top countersink size and the bottom hole size will be generated from this
4.5.3	Cutting fluid is used to assist and may be present on parts
4.6	**Welding**
4.6.1	Unless stated, we will use what we believe to be the best method of welding (MIG or TIG) and weld lengths, tacks etc
4.6.2	If there are areas that require no weld to be present, we must be made aware of this
4.6.3	Our welders are NOT coded. If there is any specific requirement, please let us know
4.6.4	Spatter may be present on finished parts
5	**Packaging**
5.1	All goods will be packaged to our standard levels. If you have a specific packaging request or would like to know more, please let us know at enquiry stage
6	**Documentation**
6.1	Where mill certification or material testing is required, please let us know to what level and your need of this at enquiry stage as there may be cost implications
7	**Inspection**
7.1	We carry out standard process checks to our own internal levels. If anything specific is required, please make us aware at enquiry stage as there may be cost implications
8	**Powder Coating**
8.1	Our inline pre treatment is 3 stage and comprises of phosphate degrease and 2xrinse processes
8.2	If items are too large to be track hung, we will process manually and cure in a box oven. In this instance, items would be hand cleaned prior to powder coating

Standard Tolerances, Unless Stated		
Process	**Size**	**Tolerance +/-**
Laser Cutting	all	0.25mm
Punching	all	0.25mm
Folding	<2000mm	0.5mm
Folding	>2000mm	0.75mm
Drill-Dia	dependent	0.5mm
Drill-Position	all	0.75mm
Welding	<1000mm	0.5mm
Welding	1000-2000mm	1.0mm
Welding	>2000mm	job dependent