### **Profiling and Polishing Service**

Vulcan Stainless offers you the most comprehensive service for profile cutting and polishing stainless steel sheet and plate in New Zealand.



### **Options include**

- Laser cutting for high accuracy and precision
- Plasma cutting for large pieces or thicknesses

We can accommodate virtually any configuration specified. Additionally with our in-house polishing service, the resulting components can be polished to a high lustre for exceptional presentation.

Components can also be supplied PE coated for protection.

With dedicated profiling teams based in Auckland and Christchurch, there is no job too small or large for us to handle.

### **Benefits for you**

- Two workshops 100% dedicated to stainless steel so less potential for contamination issues
- Very diverse range of stainless steel grades and plate sizes to meet a wide variety of applications (standard, high temperature, duplex and special purpose grades)
- Cutting options for stainless plate and sheet from 0.55 mm up to 65 mm
- North Island and South Island cutting operations
- Full material traceability including heat numbers recorded on all customer orders, and Supplier Material Certificates are available on request
- Random spot checks on stock utilising our X-ray Flourescence Metal Analyser confirms alloy composition
- No drawing charges for standard components (rectangles, disks, flanges)
- DXF, DWG & AutoCAD drawing formats all accepted

### **Laser Cutting Services**

Our 6 kW large format Laser Profiling Machine's 3,000 x 6,000mm table capacity allows for... larger size flexibility and greater productivity!



Laser cutting can often eliminate the need for post-mad engineering jobs, enabling you to reduce your manufact considerably. The process is extremely accurate and use helping to eliminate or reduce distortion. Additionally, y format capacity, the potential to reduce sheets used on welding time, offers considerable cost-savings and wher required, they can be nested across fewer sheets allowing - faster speed of delivery.

The levels of precision and edge quality achievable with superior to traditional cutting methods, enabling us to cu and very small holes.

- Large bed capacity (3,000 mm x 6,000 mm)
- Scratch-free one-side only is typically offered (due to metal bed that the plates are nested on)
- High accuracy, precision cutting
- Repeatability intricate pieces with slots, holes, angles, or detailed patterns can be created over and over to the same specifications
- Ideal for complicated shapes
- CAD/CAM component nesting for most economic use of material
- Laser etching on components can be done to improve customer efficiencies in areas such as: illustrating folding lines, part numbers, critical customer information, etc



chining on many	Thickness	Smallest Ø
turing costs	(mm)	Hole (mm)
ses less energy	25	11.0
vith our large	20	9.0
a job, and thus	16	4.5
n multiple items die	12	3.75
ng better eniciency	10	2.5
	8	2.0
laser cutting is far ut complex shapes	6	1.5
	5	1.25
	4	1.0
	3	0.75
o the nature of the	2	0.5

## **Plasma Cutting Services**

- Hypertherm high definition plasma cutting machine
- 76 mm max. cutting thickness
- Large bed capacity (3,000 mm x 6,800 mm)
- C.N.C. operated
- Underwater cutting for less heat distortion
- During the plasma cutting process, a chamfered cut is created... thus allowances need to be made for parts that need additional machining. Machining allowances need to be CLEARLY stated on placement of order!
- An in-house edge deburring service is provided





Thickness (mm)	Smallest Ø Hole (mm)	Recommended Machining Allowance (mm)
76	120	15
65	120	15
50	100	10
40	75	10
32	55	7
25	45	6
20	45	6
16	35	6
12	25	5
10	25	5
8	25	5

## **Polishing Service**

- One custom-built dry polishing machine
- Polishes plate and profile cut components
- Flat Bar polishing available (outsourced)
- No. 4 / 240 grit polish standard (Ra < 0.8µm)
- Suitable for polishing No.1 (mill finish) and 2B components from 3.0 mm to 76 mm thickness
- Maximum plate size 2,000 mm x 6,000 mm



# Coil Slitting and Cut-to-length Service To meet customers' specific requirements, Vulcan Stainless routinely out-sources this specialist process via both local and international production

facilities.



# **Sheetmetal Standard Sizing**

auge No.	mm	Imperial (ft)	Metric (mr
0	2.00	0 v 2	2/28 × 0015
0	5.00	0.0	2400 × 0910
2	2.50	8 x 4	2438 x 1219
4	2.00	10 x 3	3048 x 0915
6	1.50	10 x 4	3048 x 1219
8	1.20	10 x 5	3048 x 1524
20	0.90	12 x 3	3658 x 0915
2	0.70	12 x 4	3658 x 1219
24	0.55		
26	0.45		