

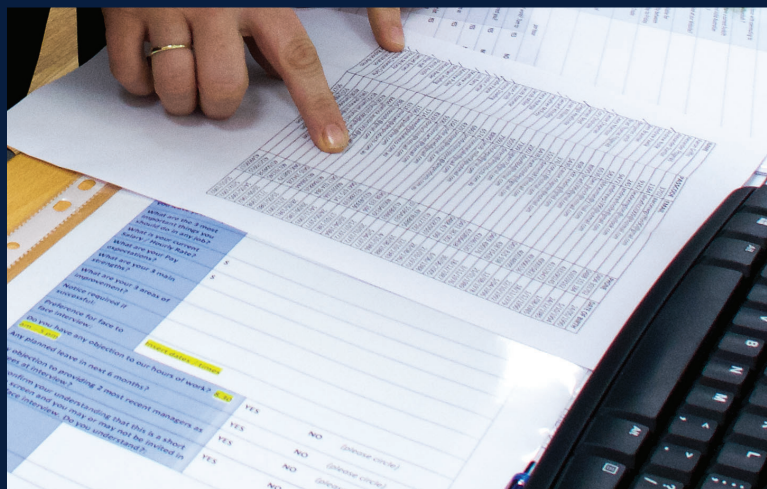


Dowling Metal Products

Capabilities Statement.

Excellence in quality and service in sheet-metal component manufacture for 50 years



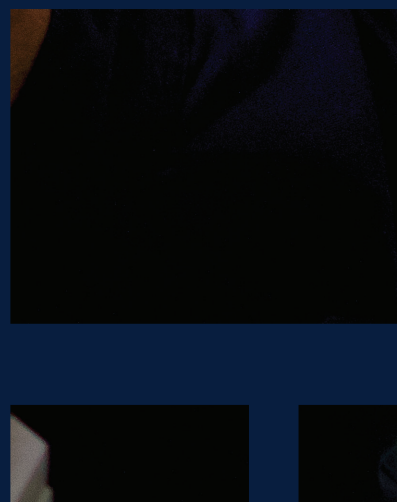


Dowling Metal Products

**Our passion is long term sustainable growth in Australian manufacturing;
Our People, Our Processes and Our Product.**

Our state of the art sheet metal machining centres and industry leading drafting and design team have enabled the company to expand to meet the challenging demands of the services industry groups that range from Communication, Mining, Civil, Architectural and Agricultural.

:01



Our manufacturing capabilities range from single parts through to mass production of complex components.

Our precision laser profile cutting, turret punch and CNC press brake service allows us to service all your engineering and fabrication requirements. Utilising the latest in tooling and processes, along with our highly skilled and motivated team, we can offer the most cost effective manufacturing methods. Our long standing role in the industry provides an advantage for our customers with an unmatched competitive edge; passing on the benefits for their component supply chain.



50 YEARS OWNED & OPERATED IN

Australian Manufacturing

Commencing 50 years ago as a small business producing agricultural implements, the operation quickly expanded to service other industries including over a dozen household name brands Australia wide.

Since our humble beginnings we have valued the delivery of quality and service along with supporting a sustainable future for manufacturing and industry in Australia. Our current aim is to provide metal component production at the best price utilising the latest methods in sheetmetal technology to continue our legacy of quality and service.

Images: Top, the original Dowling Agricultural Implements team. Below left and right, the first workshop.

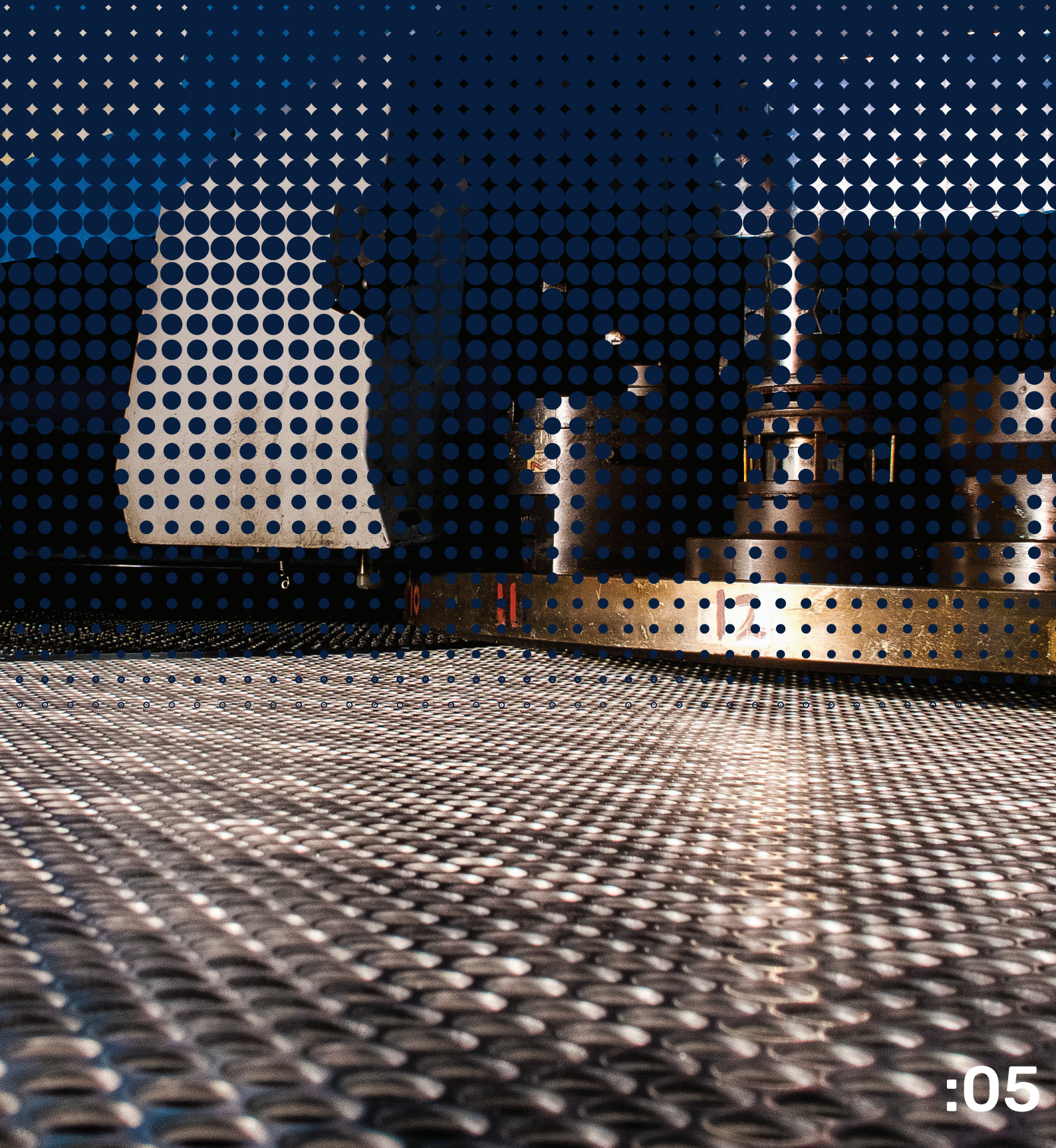
:03



Turret Punch

Our machining centres pass the savings onto you!

Cost and cycle time efficiency allows competitive priced production on an infinite range of custom designs to your specifications. From brackets to decorative designs, our versatility is beyond compare due to our enormous library of tooling and flexibility in operation.



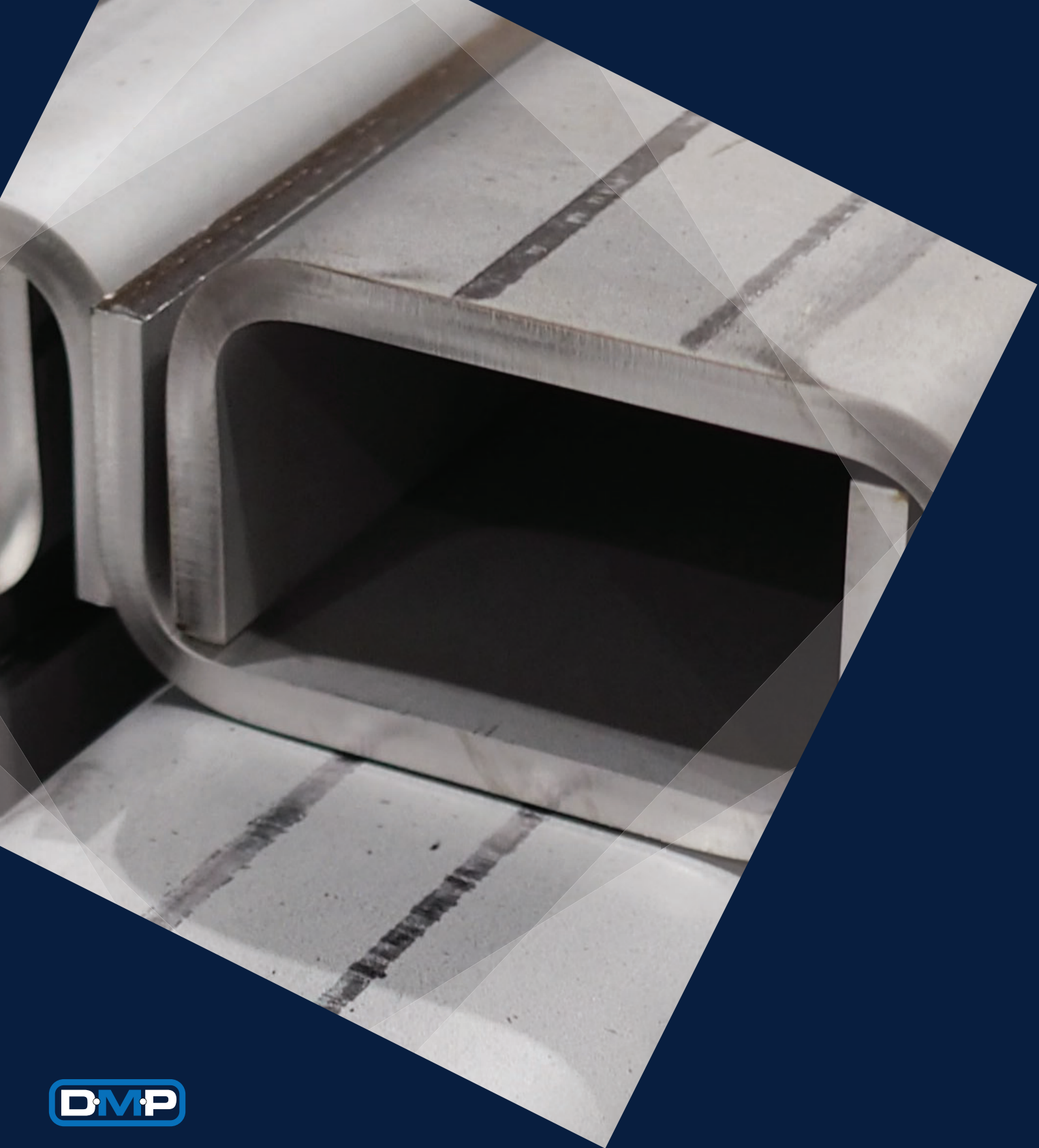
Equipment

4 x 30kN Turret Punch and Shear Combo Machines
Robotic Sheet Loaders and Part Sorters
Extensive library of common and special tools

Providing more capacity, quality and cost efficiency
for flexible sheet metal working than any other
comparable system.

Capabilities

Bed sizes up to 4.3m x 1.5m
30 Station AutoTool turntables
Sheet thickness processing from 0.5mm to 4mm
Upforming and Upbending



CNC Press Brakes

The latest in bending technology allows us to deliver on your designs from simple single-bend work through to complex precision folded components.

We have historically a long standing reputation in the steel structure industry for providing all manner of bracketry, jambs, hangers, base plates and battens. In recent times we have enjoyed taking our operations to the next level with precision engineered projects from the chemical and food industry to agricultural and automotive.



Equipment

2 x 1.3 metre/40 tonne presses
3 x 2 metre/60 tonne presses
1 x 3 metre/135 tonne press
1 x 4 metre/240 tonne press

Capabilities

Full host of tooling in common & special sizes to cover the full range of air bending, folding or coining operations.

High speed electric servo press that produce superior accuracy on repeat components and deliver low-cost bending solutions.



Laser Cutting

Our precision laser cutting is your answer to your machining needs.

Our fully automated processing centres afford our customers the versatility, quality and repeatability that is unmatched in other machining processes.

Equipment

1 x 6kW Full-Automated Fiber Laser with Loading and Stacking System
2 x 6kW CO2 laser cutters with exchangeable tables

Providing more capacity, quality and cost efficiency for flexible sheet metal working than any other comparable system.

Capabilities

Bed size 3m x 1.5m

Mild Steel - 0.5mm to 20mm
Stainless Steel - 0.5mm to 12mm
Aluminium - 0.5mm to 12mm
Brass and Copper up to 12mm

We can facilitate the manufacture of components outside the above ranges.



A close-up, high-angle photograph of a metal mesh or grate, showing a complex pattern of interconnected diamond and rectangular shapes. The metal has a brushed or polished finish, and the lighting creates strong highlights and shadows, emphasizing the three-dimensional structure. The image is partially obscured by dark blue geometric shapes at the bottom, which serve as a background for the text.

Edge Rounding, Finishing & Deburring

Equipment

High speed machines with 1320mm and 200mm bed widths with a large range of abrasive types and grades to achieve a variety of finishes (see annex pages for descriptions).

Capabilities

Deburr, grind, edge break, round, remove slag, remove oxide skin, or apply a line finish on sheet metal parts



Power Press Shop

For high volume and high repeatability component production.

Equipment

30 tonne press, 24 ½ x 17-inch bed size
60 tonne press, 32 x 21-inch bed size
300 tonne press, 2.6m x 1.2m bed size
Pneumatic feeders
Uncoiler/Straightener

We can facilitate the design and manufacture of press tooling to suit your component volume requirements.

The background features a complex geometric pattern of overlapping squares and rectangles in various shades of blue and white, creating a modern, architectural feel. A large, semi-transparent circular graphic is positioned in the lower right quadrant, containing a blue sector and a smaller white circle.

Drafting & Estimating

Our team of draftspeople and estimators provide a fast, accurate and competitive quote. In house CAD design capabilities; 2D and 3D drafting and fast CAM processing software.





Materials Most Commonly Used

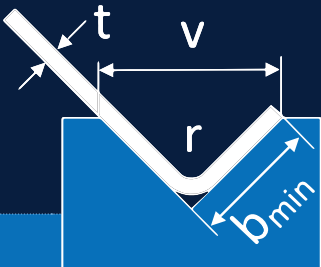
Type	Grade	Typical Uses	Suitable Fabrication Methods
Galvanised Steel	250	Partition walling systems, air conditioning ducts and panels, tube, meter boxes, trailers, cable trays, scaffolding planks, rendering mesh, feeder troughs	Punching, Laser, Bending, Pressing, Welding
	450	Purlin brackets and girts for structural building applications. 450MPa longitudinal tensile yield	Punching, Laser, Bending, Welding
Hot Rolled Plate Steel	250 - 350	Structural members, minimum yield strength of 250 MPa	Laser, Bending, Welding, Galvanizing
	350	Weathering or corten steel for non-structural architectural applications such as solid facades, walls, perforated screens, light sculptures, landscaping features, fences, signage.	Laser, Bending, Welding
Stainless Steel	160 - 330 Pickled & Oiled	Stillages, shelving, hidden appliance panels, simple pressings	Punching, Laser, Bending, Pressing, Welding, Galvanizing
	304	General purpose steel with good corrosion resistance for most applications. Used for architecture, food processing, domestic sinks and tubs and deep drawing applications.	Punching, Laser, Bending, Welding
	316	Used where higher corrosion resistance is required, i.e. Marine equipment	
Aluminium	5005	Architectural applications, general sheet metal work. The most commonly used grade of aluminium in sheet and plate form.	Punching, Laser, Bending, Welding
	5052	Architectural, general sheet work ,heat exchangers, marine applications, pool fencing	Punching, Laser, Bending, Welding
	5083	Marine applications, unfired welded pressure vessels, TV towers, drilling rigs, transportation equipment	Punching, Laser, Welding

Common Turret Punch Cluster Tools

Enquire for other options not listed

Size Hole	Centres	Open Area (%)	Max Material Thickness (mm)
2.5mm Round	5mm	22.7	1
2.6mm Round	4.8	26.6	1
3.25mm Round	4.76mm	42.3	2
4mm Round	6mm	40.4	2.5
4.8mm Round	6.5mm	49.5	3mm
6mm Round	9mm	40.3	3mm
8mm Round	11mm	48	3mm
9.5mm Round	14mm	41.8	3mm
9.75mm round	12.75mm	53	3mm
10mm Round	12mm	63	2.5mm
12.5mm Round	17mm	49	2.5mm
15mm Round	18.5,22	59.8,42.3	3mm
19mm Round	25.4mm	50.7	2mm
25.4 x 4.76mm obround	30.16	40.4	3mm
25.4 x 4.76mm obround	32.12	29.2	3mm
30 x 5mm obround	30	33	3mm
30 x 5mm obround	15	24	3mm
15 x 2.5mm rect	20	37.5	2mm
9.65mm hex	12	64.7	2mm

Air Bending Force Chart



Air Bending Chart for Mild steel Rm=450N/mm2																										
Die opening V		4	6	7	8	10	12	14	16	18	20	25	32	40	50	63	80	100	125	160	200					
Minimum bend length bmin		2.8	4	5	5.5	7	8.5	10	11	13.5	14	18	22	28	35	45	55	71	89	113						
Bending radius r		0.7	1	11	1.3	1.6	2	2.3	2.6	3	3.3	4.0	5.0	6.5	8	10	13	16	20	26						
Thickness	0,5mm	40	30																							
	0,6mm	60	40	40	40																					
	0,8mm		70	70	50	40																				
	1,0mm		110	100	80	70																				
	1,2mm			140	120	100	80	70	60																	
	1,5mm				170	150	130	110	90	80																
	2,0mm						220	190	170	150	130	110														
	2,5mm								280	250	220	180	140													
	3,0mm									340	300	240	190	150												
	3,5mm											330	260	200	160	130										
	4,0mm												430	340	270	210	170									
	4,5mm													440	340	270	210									
	5,0mm														520	420	330	260	210							
	6,0mm															750	600	480	380	300	240					
	7,0mm																	520	410	330	260					
	8,0mm																		850	680	530	430				
	9,0mm																			670	540	430				
	10mm																				850	670	530	420		
	12mm																						960	780	600	550
	15mm																								950	750

Finish Descriptions

Stainless Steel Strip, Sheet and Plate (BS 1449: Part 2, 1975)

Mill Finishes		
No.	Description	Remarks
1	Hot-rolled, softened and descaled.	Generally used when smoothness and uniformity of finish are not important
2D	Cold-rolled, softened, and descaled	A uniform, matte finish
2B	Cold-rolled, softened, descaled, and lightly polished on polishing rolls	A smooth finish for general applications. Brighter finish than 2D
BA	Bright Annealed	A cold rolled reflective finish retained through annealing
Machine Finish		
No.	Description	Remarks
3	Ground. Polish	A uniform finish generally obtained with 100-180 grit size.
4	Polished with 240 grit	Has a grained texture, not highly reflective, which is suitable for general purposes.
8	Mirror Polish	Has a bright reflective finish with a medium degree of image clarity.



Dowling Metal Products

© 2022 Dowling Metal Products
8 Thornbill Drive, South Murwillumbah NSW 2484 Australia
Telephone +61 02 6672 8381

dmproducts.com.au orders@dmproducts.com.au

