



ATEX APPROVED



A I R S A W S F O R T H E P R O F E S S I O N A L





started business in 1945 and patented the first twin piston Saw in 1954 with a further new design in 1964. Since then we have continued to improve on the original idea by use of new materials to produce the best quality Professional Air Saws in the World

The main product features are : -

- ***Atex certified   II 2G T5 for Zone 1 use and the JSM is certified to I M2 for underground coalmining use***
- ***Air consumption - only 0.116 to 0.168m³/min (4 to 5 ³/₄ C.f.m.) much lower than any vaned Air Saw or copy piston one***
- ***Low noise and vibration allowing unrestricted use under most conditions***
- ***Easy and inexpensive to repair***
- ***Fast cutting under load***
- ***Environmentally friendly***

Cengar Saws are ideal for use in all demanding environments where reliability, high productivity and protecting the operator is important.

The best cutting performance and result is achieved by using the right combination of saw and blade. We manufacture a range of nine different Saws and thirty blades providing a minimum of two hundred and seventy options to cutting problems. Send us a sample of any type of material you want to cut and we will carry out tests to determine the best combination.

Lubricate the saws and use them correctly and they will last as long as a good quality motor car. Most repairs and routine maintenance can be carried out in twenty to thirty minutes using a low cost parts repair kit.

CL, JP, and PL Saws are supplied in a strong plastic carrying case complete with Oil, Blades and a Multi lingual C.D. operation and maintenance manual.

Our high quality Cengar Green Lubricating Oil and Blades are specially made for use on all types of Air Driven Tools.

We manufacture low volume special saws, including ones for mounting on robotic arms for different applications.

Blade Selection

General Rule: -

No Less than 3 teeth in contact
Ideally between 6 and 12 teeth in contact
No More than 24 teeth in contact



For Hollow Section: Thickness in mm = Wall Thickness X 2

Available blade pitches

Thickness (mm)	32 TPI	24 TPI	18 TPI	14 TPI	10-14 TPI Varipitch	10 TPI	8 TPI	6 TPI
2	3	2	1	1	1	1	1	0
5	6	5	4	3	2	2	2	1
10	13	9	7	6	5	4	3	2
15	19	14	11	8	7	6	5	4
20	25	19	14	11	9	8	6	5
25	31	24	18	14	12	10	8	6
30	38	28	21	17	14	12	9	7
35	44	33	25	19	17	14	11	8
40	50	38	28	22	19	16	13	9
45	57	43	32	25	21	18	14	11
50	63	47	35	28	24	20	16	12
55	69	52	39	30	26	22	17	13
60	76	57	43	33	28	24	19	14
65	82	61	46	36	31	26	20	15
70	88	66	50	39	33	28	22	17
75	94	71	53	41	35	30	24	18
80	101	76	57	44	38	31	25	19
85	107	80	60	47	40	33	27	20
90	113	85	64	50	43	35	28	21
95	120	90	67	52	45	37	30	22
100	126	94	71	55	47	39	31	24

The numbers in the coloured boxes indicates the *actual* number of teeth which will be in contact with the work

Saw Selection

Saw Model

Pipe Diameter (mm)	PL905 Hand Held	CL50/75 on clamp	JSZ/JSM on clamp
50	150mm blade	200mm blade	200mm blade
100	200mm blade	250mm blade	250mm blade
150	250mm blade	300mm blade	300mm blade
200	300mm blade		350mm blade
250			400mm blade
300			450mm blade

Standard Blade Range

12mm (1/2") blades

For use in the JP901, PL905, and the CL50 Saws

HP300	(300mm long)	18 tpi, 24 tpi, and 32 tpi.
MC220	(220mm long)	24 tpi only.
MYT 150	(150mm long)	18 tpi only.
MYN 150	(150mm long)	18 tpi only.

19mm (3/4") Blades

For Use in the CL75 Saw

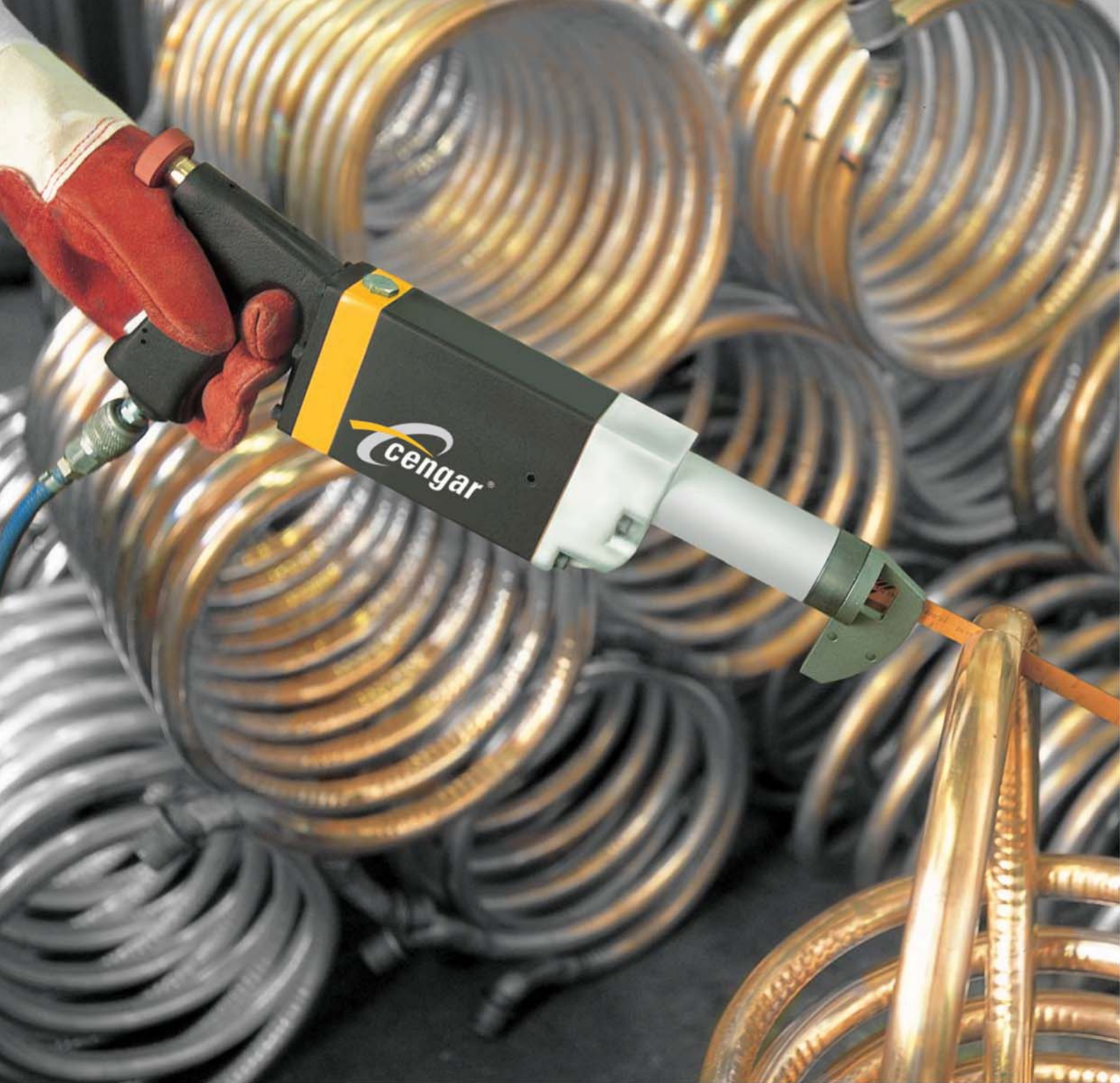
MB150	(150mm long)	10 tpi, 10-14 tpi (varipitch), 18 tpi, and 24 tpi.
MB200	(200mm long)	10 tpi, 10-14 tpi (varipitch), 18 tpi, and 24 tpi.
MB250	(250mm long)	10 tpi, 18 tpi, and 24 tpi.
MB300	(300mm long)	10 tpi, 10-14 tpi (varipitch), 18 tpi.

25mm (1") Blades

For use in the JSZ and JSM Saws

MJ300	(300mm long)	6 tpi, 8 tpi, 10 tpi, and 14 tpi
MJ450	(450mm long)	6 tpi, 8 tpi, 10 tpi, and 14 tpi

(tpi = teeth per inch)



CL50 & CL75 for demanding CUTTING METAL, AND GLASS FIBRE REINFORCED PLASTIC **and rugged applications**

The CL50 Saw was the first of its kind in the World, originally designed for use with broken hand hacksaw blades but now used with our range of standard and special 12mm ($\frac{1}{2}$ ") wide Bi-Metal Blades

The CL75 Saw uses 19mm ($\frac{3}{4}$ ") wide Bi-Metal Blades to cut pipes including stainless and cast iron up to 150mm (6") diameter. It can also be fitted to a standard manual or new power feed pipe & profile clamp for square cutting.

Both Saws are fitted with a safety isolator. Conversion from one to the other is done by simply changing the Nosepiece.

Used for many applications in Oil & Petrochemical, Fabrication, Ship Building and Repair, Boatbuilding, Aircraft Maintenance and by Fire and Rescue Services.



CL50FT & CL75FT with inside trigger

CUTTING METAL, AND GLASS FIBRE REINFORCED PLASTIC

for User comfort

**Same performance as the CL50 & CL75 but with a forward facing inside trigger to suit customer preference
Some hand held applications are easier where the trigger is finger instead of palm operated**

**The CL50FT Saw uses 12mm ($1\frac{1}{2}$ ") wide Bi-Metal Blades or our Standard Hand Hacksaw Blades
The CL75FT Saw uses 19mm ($3\frac{3}{4}$ ") wide Bi-Metal Blades to cut pipes including stainless and cast iron up to 150mm (6") diameter. It can also be fitted to a standard manual or new power feed pipe & profile clamp for square cutting.**

Both Saws are fitted with a safety isolator. Conversion from one to the other is done by simply changing the Nosepiece.

Used for many applications in Oil & Petrochemical, Fabrication, Ship Building and Repair, Boatbuilding, Aircraft Maintenance and by Fire and Rescue Services.



PL905 for high volume

REPAIRING WOODEN PALLETS, BUILDING AND REPAIRING BUS
AND TRUCK BODIES, CUTTING GLASS FIBRE REINFORCED PLASTIC

production environments

A low vibration Saw cutting faster than the CL. Ideal for cutting heavy section G.R.P. and Metal up to 20mm ($\frac{3}{4}$ ") thick.

Designed specifically for use in a continuous production environment such as pallet repair, but increasingly used by Gas Contractors, Bus & Truck Builders, The Oil & Petrochemical Industry and luxury car manufacturers for cutting sophisticated composite materials

Fitted with a safety isolator and uses 12mm ($\frac{1}{2}$ ") wide Bi-Metal Blades. Can be converted to use 19mm ($\frac{3}{4}$ ") Bi-Metal Blades by simply changing the Nosepiece.

Use with our Air Driven Pallet Spreader for continuous use on pallet repair production lines.



PL905FT with inside trigger

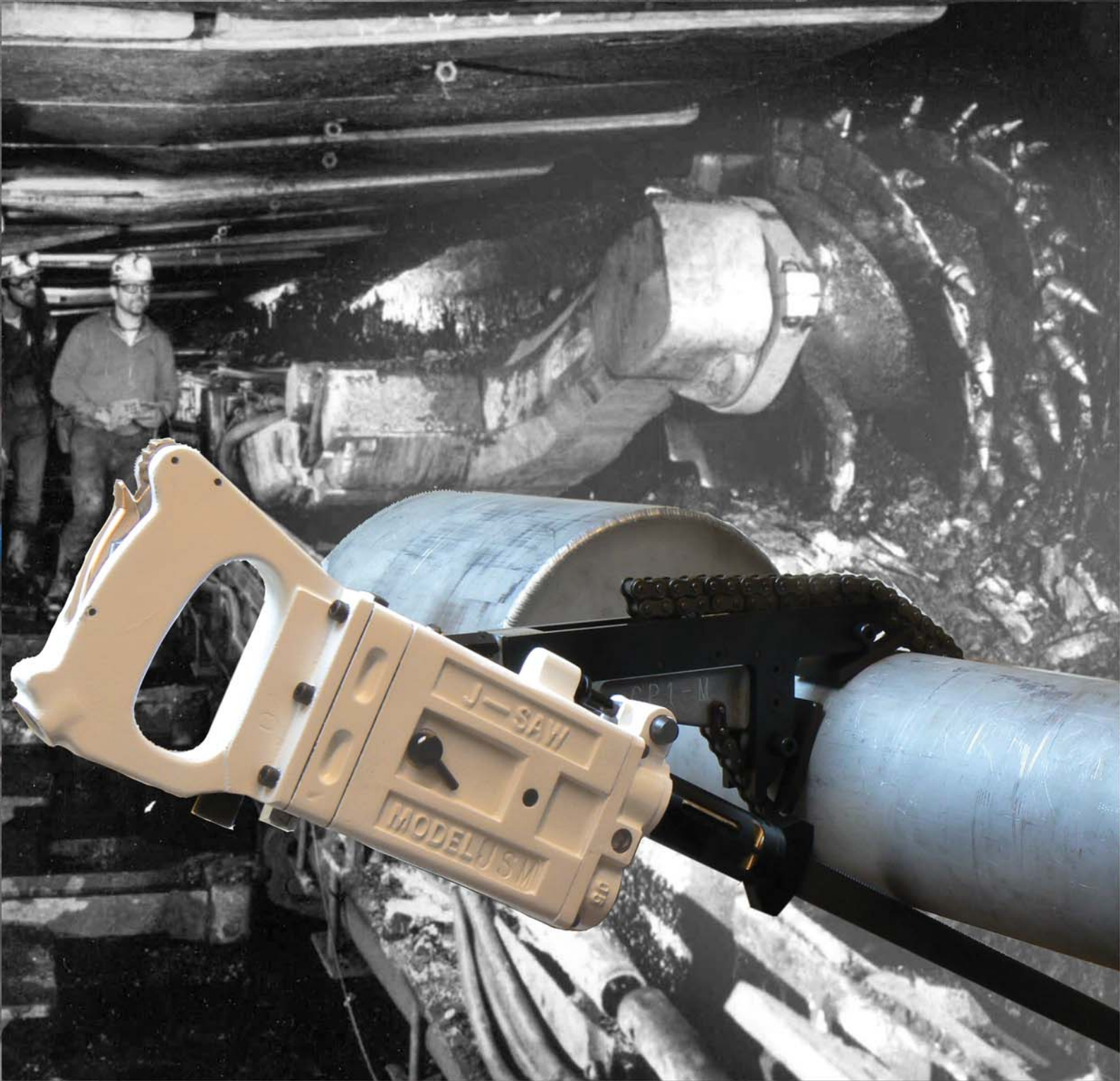
REPAIRING WOODEN PALLETS, BUILDING AND REPAIRING BUS
AND TRUCK BODIES, CUTTING GLASS FIBRE REINFORCED PLASTIC
for user comfort

**Same performance as the PL905 but with a forward facing inside trigger to suit customer preference
Some hand held applications are easier where the trigger is finger instead of palm operated**

Both the PL905 and the PL905FT are ideal for cutting the newer more durable laminate materials such as epoxy, Kevlar, and others which can be challenging to cut cleanly. Commonly used in all kinds of manufacturing from sports cars to superyachts

Fitted with a safety isolator and uses 12mm (1/2") wide Bi-Metal Blades. Can be converted to use 19mm (3/4") Bi-Metal Blades by simply changing the Nosepiece

Use with our Air Driven Pallet Spreader for continuous use on pallet repair production lines



JSM for cutting steel sections *For underground use in coal mines and other mining applications* **and pipe up to 300mm**

Made for use in underground coal mining, the JSM is for cutting steel sections and pipe up to 300mm (12") diameter. The body is made from Zamac with no Aluminium content.

The Saw comes complete with a pipe & profile clamp and a blade guide to ensure straight cuts. Using it in a mounted position means there is no hand arm vibration problem. Optional automatic feed facility available on request.

This dual speed machine is fitted with automatic lubrication and a trigger lock.

Uses Cengar 25mm (1") wide Bi-Metal Saw Blades

Atex approved II 2G T5 I M2



JSZ for cutting steel sections

OIL, PETROCHEMICAL AND PIPE FABRICATION INDUSTRIES

and pipe up to 300mm

Originally made for use in underground coal mining the JSZ is now used in the Oil & Petrochemical and Pipe Fabrication Industries for cutting steel sections and pipe up to 300mm (12") diameter.

The Saw comes complete with a pipe & profile clamp and a blade guide to ensure straight cuts. Using it in a mounted position means there is no hand arm vibration problem. Optional automatic feed facility available on request.

This dual speed machine is fitted with automatic lubrication and a trigger lock.

Uses Cengar 25mm (1") wide Bi-Metal Saw Blades



JP901 for building and CUTTING GLASS FIBRE REINFORCED PLASTIC, LIGHT GAUGE METAL **repairing G.R.P. products**

This short stroke, very fast cutting Saw was made especially for cutting thin section glass fibre reinforced plastics up to 6mm ($\frac{1}{4}$ ") and light gauge metal up to 3mm ($\frac{1}{8}$ ") thick.

Using Cengar Yellow Notched and Tapered shape Blades allows cutting of tight circles and shapes, such as instrument panels in boats, buses, trucks and cars. Standard 12mm ($\frac{1}{2}$ ") Bi-Metal Blades can also be used for cutting fabricated products.

The Saw is fitted with a safety isolator for use when changing Blades.

An optional dust extraction hood is available for use with Vacuum Cleaners and fixed dust extraction systems.



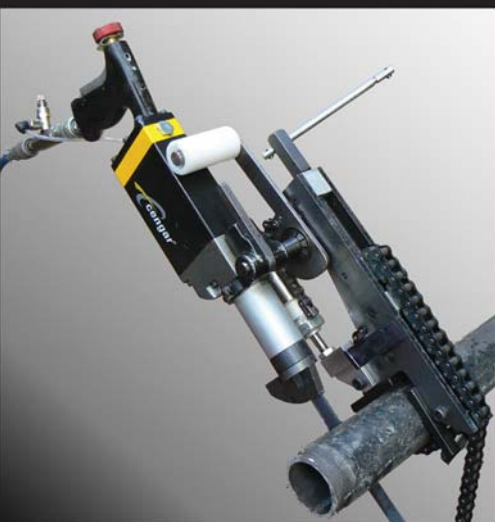
GREEN OIL

Cengar Green Oil is a low viscosity oil developed to provide essential lubrication. It emulsifies with water found in air lines and contains a rust inhibitor to prevent corrosion when the saw is not in use. Cengar Green Oil is ideal for all air driven tools and equipment and is available in visible strip plastic bottles 250ml (8½ fl.oz.) 5 litre (1⅓ gal.) and 25 litre (6⅔ gal.) plastic containers and 210 litre (55½ gal.) steel drums.

M.S. Cleaner

A specially developed oil used to remove dirt, moisture and oil residue quickly from the inside of all airtools and motors.

This "service in a bottle" reduces the need to dismantle tools and is available in 50 ml. (1.75 fl. oz.) dropper bottle and 1 Litre (35 fl. oz.) containers



Clamps for Pipes and Profiles

Available as manual or power feed versions. Cengar Clamps grip to any shape of section including I Beams

Self adjusting feet provide a firm position which ensures a square clean cut so that joints fit together perfectly the first time

Speeds up the cutting process and increases blade life by maintaining a constant feed pressure

Reduces hand-arm vibration exposure to zero as operators have no need for contact allowing them to withdraw to a safe position during the cutting process



Pallet Expander

Used during pallet repair to push the boards apart, opening a slight gap to allow for easy blade access

Reduces drag from the wood so the saw blade only cuts the nails and speeds up the cut dramatically, reduces operator fatigue and extends blade life

A Board Catcher is fitted as standard for safety, preventing the board from flying up when the nails are cut

Used in conjunction with the PL905 Saw and MC220 Blade provides all you need to remove any damaged boards

PS1 for standard Euro Pallets - expands up to 130mm

PS2 for Low profile Pallets - expands up to 100mm

TECHNICAL SPECIFICATION - SAWS

		CL50	CL75	JP901	PL905	JSZ / JSM
Speed - strokes per minute		1200	1200	10,000	2,000	400 & 600
Stroke	mm	45	45	9	22	57
	in	1 3/4	1 3/4	3/8	7/8	2 1/4
Standard nosepiece	mm	12	19	12	12	25
	in	1/2	3/4	1/2	1/2	1
Air consumption	m³/min	0.168	0.168	0.116	0.116	0.168
	cfm	5 3/4	5 3/4	4	4	5 3/4
Weight	kgs	2.50	2.50	1.60	2.40	5.5 / 6.9
	lbs	5 1/2	5 1/2	3 1/2	5 1/4	12 / 15
Length	mm	400	400	270	300	448
	in	15 3/4	15 3/4	10 3/4	11 3/4	17 5/8
Height	mm	134	134	70	135	141
	in	5 1/4	5 1/4	2 3/4	5 1/4	5 1/2
Width	mm	40.6	40.6	40	40.6	54
	in	1 5/8	1 5/8	1 5/8	1 5/8	2 1/8
Air pressure	Bar	5 - 6	5 - 6	5	5 - 6	5 - 6
	p.s.i.	75 - 90	75 - 90	75	75 - 90	75 - 90
Sound pressure level	dB (A)	82.9	82.9	68.6	68.7	80.5
Sound power level	dB (A)	92.4	92.4	78.0	69.8	89.9
Vibration level	m/s²	3.2	3.2	6.5	1.9	N/A

Please note: The vibration levels shown above are provided for guidance. They can increase or reduce depending on circumstances, especially if used with Clamps when exposure levels will reduce.

No level is shown for the JSZ/JSM because they are not hand held machines.

If you have a cutting problem, send us the details and a material sample and we will, free of charge, carry out tests to determine the right Saw and Blade to do the job.

We make special versions of our Saws to meet unusual requirements.

Other Products:

**Blades for use on electric reciprocating saws
Saws & blades for use on pipes up to 800mm dia.**

Approved Distributor

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For more information or a demonstration please contact us or one of our approved distributors.