



Special Applications



>> Australia's leading manufacturer of quality pole products with representation in every state and territory.

INGAL **EPS**

A **valmont**  COMPANY



INGAL EPS is a division of Industrial Galvanizers Corporation Pty Ltd which is ultimately owned by Valmont Industries Inc. Actively involved in the Australian pole market since 1969, INGAL EPS has strived to continuously lead the industry in research, design, innovation, quality of product and quality of service. Establishing industry benchmarks such as the Seesaw pole, 60km/h and 110km/h Impact Absorbing poles and the largest steel poles ever installed in both Australia and New Zealand.

The company employs around 150 staff and has offices located in every state and territory of Australia and on the North Island of New Zealand. With manufacturing facilities in Brisbane and Perth and full access to three modern facilities in China owned by Valmont Industries Inc, INGAL EPS is well positioned to meet the broad requirements of the pole market. Due to our extensive experience, national coverage, resources and manufacturing capacity we have the ability to provide the most comprehensive product range available.

The INGAL EPS product range includes:

- Street Lighting poles
- Floodlighting poles
- Power poles
- Lowering Systems, for ease of maintenance
- Special Application poles including banner poles, camera poles, traffic signal and communication poles
- Services & Accessories providing individual design, drafting, installation and accessories including foundation materials, adaptors, headframes and cross arms.

With our dedicated design service, material control, quality assured manufacturing processes and after sales service, INGAL EPS has established itself as Australasia's largest pole supplier. INGAL EPS has over four decades of experience leading the industry in Australia and our ever improving product range and expanded manufacturing resources will continue to ensure we're at the cutting edge of providing new and innovative solutions to a growing and ever more demanding market.

Bentley Pines Restaurant

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South East Metropolitan College
of *tafe*

Banner Poles

With flexibility to design aesthetically pleasing poles that complement the surroundings and size of the banner, INGAL EPS can create a tailored solution to meet your banner pole requirements. All designs are engineered to take into account the sail area of the banner, pole and any other items to be mounted on the pole.

Options and Accessories

- Banner Poles can be either base plate or in-ground mounted
- Steel poles are hot dip galvanized and can be powder coated or painted in the colour of your choice
- Banner Poles can be designed in tapered round, tapered octagonal, tapered 16 sided, parallel multisided circular hollow section (CHS) or square hollow section (SHS).
- Specially tailored poles are depicted on this product sheet but virtually anything can be designed for differing heights, width and location requirements for your application
- Architectural design and structural engineering
- Preassembly
- Pre cabling (if luminaires fitted)
- Installation.



Roadway Banner



Street Banners



Promotional Flags

Camera Poles

Ideal for Intelligent Transportation Systems such as traffic surveillance cameras and security monitoring, Camera Poles are an aesthetically pleasing range designed as 16 sided to reduce the oscillation effect of wind on the pole. This is particularly important with camera poles because a small movement can greatly affect the image quality. The structural rigidity of Camera Poles and the aerodynamic effect of being 16 sided ensures that the pole deflection is kept within ½ a degree for the majority of applications.

Options and Accessories

- Camera Poles are base plate mounted as standard but can be designed for in-ground mounting
- The range is available in tapered 16 sided only
- The poles are hot dip galvanized and can be powder coated or painted in the colour of your choice
- The standard poles are depicted on this product sheet, however they can be designed for differing height and deflection requirements
- Seesaw versions of all camera poles can be manufactured
- Preassembly
- Installation.

Product Codes

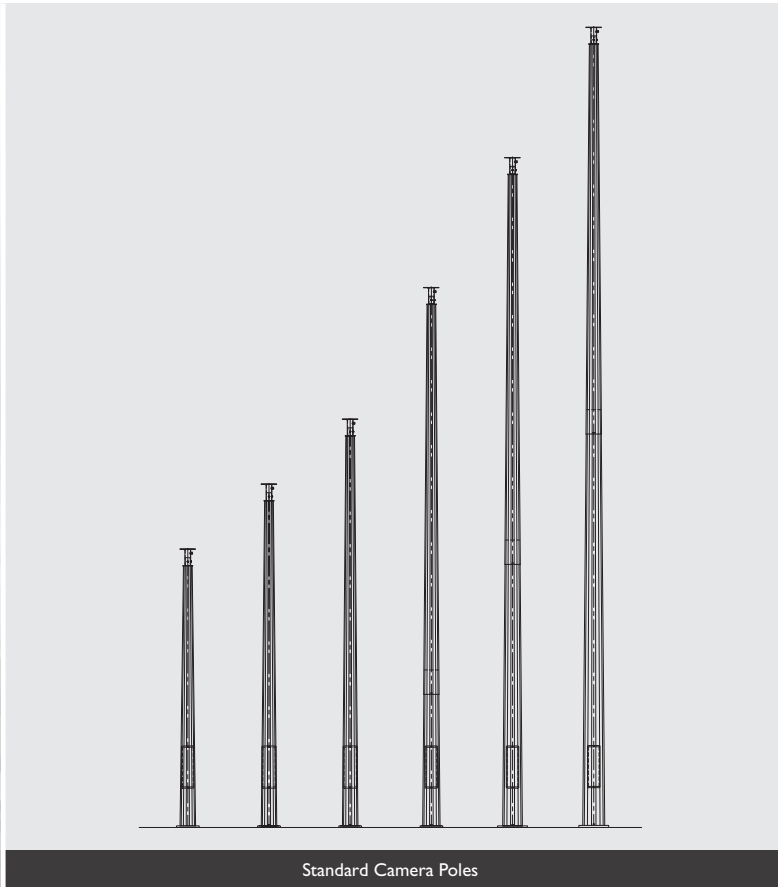
For more information, please refer to the Technical Data Sheet.

Camera Poles					
4m	5m	6m	8m	10m	12m
FCTV4F	FCTV5F	FCTV6F	FCTV8F	FCTV10F	FCTV12F

F=Fixed CTV=Closed Circuit Television F=Flange Mounted (Base Plate)



Camera Pole



Standard Camera Poles



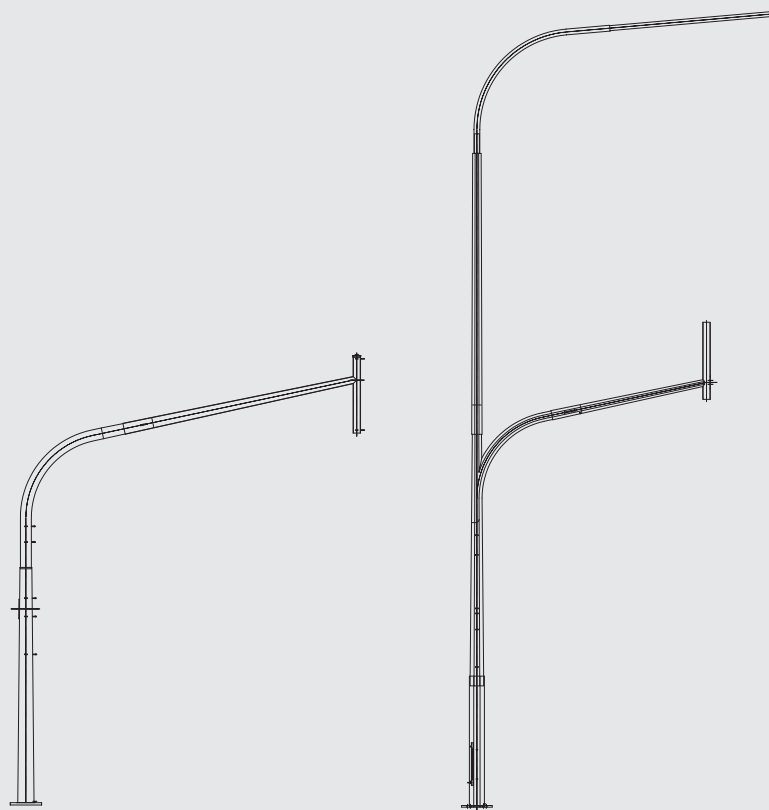


Traffic Signal Poles

Traffic Signal poles are specially designed for roadway and intersection requirements, usually to meet local road authority or council specifications. The Traffic Signal range is designed for standard and specialised signal and lighting applications.

Options and Accessories

- Traffic Signal poles can be either base plate or in-ground mounted, depending on the relevant authority's requirements.
- The poles are hot dip galvanized and can be powder coated or painted in the colour of your choice
- Poles are available in tapered round, tapered octagonal and circular hollow section (CHS)
- Some standard Australian road authority poles are depicted on this product sheet, however varying heights, outreach lengths and signal mounting points can be designed for your application
- Preassembly
- Pre cabling
- Installation.



Traffic Signal Pole examples

Communication Poles

The Communication pole range has been designed specifically for the mobile phone communications market. Two different load capacity configurations are available; the Superslim (light antenna loads) and the Slimline (typical poles used in the industry).

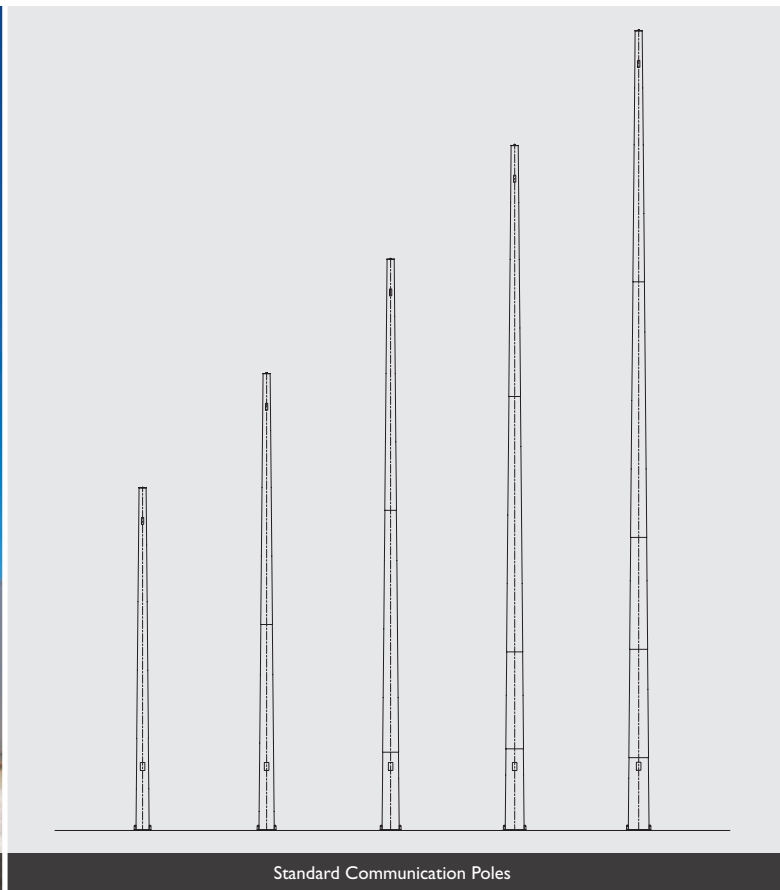
Options and Accessories

- Communication poles can be either base plate or in-ground mounted
- Poles are supplied with cable entries above ground, to suit the number and location of antennas.
- The poles are hot dip galvanized and can be powder coated or painted in the colour of your choice
- The range is available in tapered round, however tapered multisided can be produced
- Standard mounting heights are 15m to 35m
- The standard poles are depicted on this product sheet, however they can be designed for differing heights
- Preassembly
- Installation.

Product Codes For more information, please refer to the Technical Data Sheet.

Superslim and Slimline				
15m	20m	25m	30m	35m
CS15FMK2	CS20FMK2	CS25FMK2	CS30FMK2	CS35FMK2
CL15FMK2	CL20FMK2	CL25FMK2	CL30FMK2	CL35FMK2

C=Communication S=Superslim L=Slimline F=Flange Mounted (Base Plate) MK=Mark2







Wind Indicator Poles

Our range of Wind Indicator poles are specifically designed for airfield and helipad use, being able to endure extreme weather conditions. All our Wind Indicator poles meet the design criteria required for all Australian wind regions and terrain categories, without exception. There are three standard poles available, 6m without illumination, 8m Illuminated and an 8m Illuminated Seesaw Wind Indicator pole for ease of maintenance. INGAL EPS is listed with the Civil Aviation Safety Authority (CASA) as a supplier of Wind Indicator products.

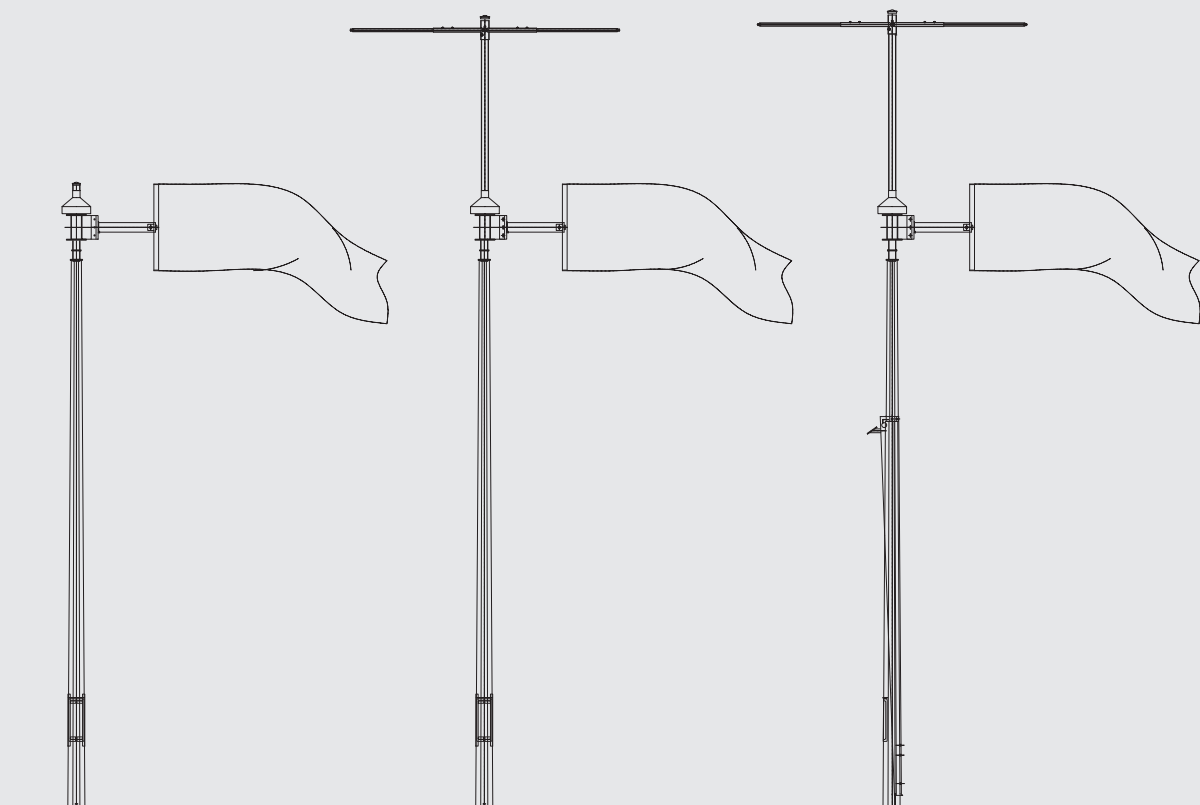
Options and Accessories

- Wind Indicator poles are base plate mounted as standard but can be designed for in-ground mounting
- The poles are hot dip galvanized and can be powder coated or painted in the colour of your choice
- The range is available in tapered octagonal only
- Standard mounting heights are 6m and 8m
- The standard poles are depicted on this product sheet, however they can be designed for different height requirements
- A Seesaw version is available as standard for the 8m pole
- Wind socks are available as additional accessories
- Preassembly
- Pre cabling (if luminaire fitted)
- Installation.

Product Codes For more information, please refer to the Technical Data Sheet.

Wind Indicator Poles	
6m	8m
WI6F	IWI8F
	HIWI8F

H=Hinged I=Illuminated WI=Wind Indicator F=Flange Mounted (Base Plate)



Standard Wind Indicator Poles

Technical Information

NOMINAL HEIGHT (m)	CATALOGUE No.	POLE DIAMETER TOP (mm)	POLE DIAMETER BOT. (mm)	DOOR SIZE L x W (mm)x(mm)	BOLTS	COLUMN DEFLECTION (mm) (Refer note 1)	ULT. BASE MOMENT (kNm) (Refer note 2)	ULT. BASE SHEAR (kN) (Refer note 2)	WORK. BASE MOMENT (kNm) (Refer note 2)	WORK. BASE SHEAR (kN) (Refer note 2)	SCREW PILE	POLE WEIGHT (kg)
Camera Poles												
4	FCTV4F	134	239	610 x 165	4M24@350	2	11.3	4.0	7.5	2.7	3A	80
5	FCTV5F	134	239	610 x 165	4M24@350	5	16.1	4.7	10.7	3.1	3A	94
6	FCTV6F	134	239	610 x 165	4M24@350	10	21.3	5.3	14.2	3.5	3A	108
8	FCTV8F	134	268	610 x 190	4M24@350	18	35.2	7.0	23.5	4.7	3B*	173
10	FCTV10F	134	304	610 x 190	4M30@500	31	53.5	9.0	35.7	6.0	4B	250
12	FCTV12F	134	340	610 x 190	4M30@500	46	77.5	11.3	51.7	7.5	4B*	315

Note 1: Column deflections have been calculated at a wind speed of 100km/hr for a camera sail area / weight of 0.2 m² and 30 kg respectively.

Note 2: Calculated in accordance with AS 1170.2 for Region D, Terrain Category 2 for a camera sail area / weight of 0.5 m² and 50 kg respectively.

* Check with INGAL EPS (in some loading scenarios these Screw Piles may not be suitable).

NOMINAL HEIGHT (m)	CATALOGUE No.	POLE DIAMETER		DOOR SIZE L x W (mm)x(mm)	BOLTS	MAX.TOP WEIGHT (kg)	MAXIMUM ALLOWABLE SAIL AREA (M²)						ULT. BASE MOMENT (kNm)	ULT. BASE SHEAR (kN)	WORK. BASE MOMENT (kNm)	WORK. BASE SHEAR (kN)	SCREW PILE	POLE WEIGHT (kg)	
		REGION - TERRAIN CATEGORY (AS1170.2)																	
		A-2	A-3				B-2	B-3	C-2	C-3	D-2	D-3							
Communication Poles : Superslim																			
15	CS15FMK2	310	577	350 x 200	12M24@670	550	7.6	11.1	7.6	11.1	5.1	6.8	n/a	291.0	25.0	194.0	16.7	n/a	940
20	CS20FMK2	310	662	350 x 200	16M24@750	550	5.3	7.5	5.3	7.5	4.3	5.3	n/a	432.0	30.1	288.0	20.1	n/a	1,490
25	CS25FMK2	310	757	350 x 200	16M24@850	550	3.9	5.2	3.9	5.2	3.8	4.5	n/a	609.0	36.3	406.0	24.2	n/a	2,070
30	CS30FMK2	310	838	350 x 200	20M24@930	550	2.5	3.5	2.5	3.5	2.4	2.6	n/a	735.0	40.3	490.0	26.9	n/a	2,850
35	CS35FMK2	310	920	350 x 200	24M24@1010	550	1.5	2.5	1.5	2.5	1.5	2.2	n/a	1,031.0	53.1	687.3	35.4	n/a	3,740
Communication Poles : Slimline																			
15	CL15FMK2	396	662	350 x 200	16M24@750	650	14.7	20.0	14.7	20.0	8.5	13.0	n/a	502.0	40.0	334.7	26.7	n/a	1,270
20	CL20FMK2	396	757	350 x 200	20M24@850	650	10.9	15.0	10.9	15.0	7.0	8.6	n/a	624.0	40.9	416.0	27.3	n/a	1,860
25	CL25FMK2	396	838	350 x 200	24M24@930	650	7.9	10.0	7.9	10.0	7.5	8.2	n/a	953.0	51.5	635.3	34.3	n/a	2,640
30	CL30FMK2	396	920	350 x 200	24M24@1010	650	5.5	7.1	5.5	7.1	4.8	5.5	n/a	1,049.0	52.8	699.3	35.2	n/a	3,530
35	CL35FMK2	396	1006	350 x 200	28M24@1100	650	3.6	5.4	3.6	5.4	2.5	3.3	n/a	1,279.0	62.4	852.7	41.6	n/a	4,660

Above maximum sail areas include 50kg for every 1 m² or part thereof.

Sail area capacities up to and including wind region B are limited by maximum pole top rotation, 0.8 degrees at 27m/s serviceability windspeed.

These columns can be supplied with climbing rungs and a safety climb system, usually starting at 6 metres to restrict unauthorised access.

There is no allowance in the above maximum sail areas for the additional sail area from climbing rungs and safety climb system.

>> STREET LIGHTING POLES >> FLOODLIGHTING POLES >> POWER POLES
>> LOWERING SYSTEMS >> SPECIAL APPLICATION POLES >> SERVICES & ACCESSORIES

To view our entire product range, or for the most up to date product information,
please visit our comprehensive on-line catalogue at www.ingaleps.com.au



INGAL **EPS**

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ABN 40 000 545 415
FREECALL 1800 623 302

sales@ingaleps.com.au
www.ingaleps.com.au
www.valmont.com