



PRAGMATA
ENGINEERING

CUSTOMIZATIONNNNNNNNN
CCCCCCCCCCCCCONSISTENCY
COST EFFECTIVENESSSSSS

KNOW ABOUT US

WHAT WE OFFER

Starting out as a leading supplier of Standard Industrial Fasteners, Pragmata now stands tall firmly as a specialist in providing Made-to-Drawings Fasteners and Components of Metals, Engineering Plastics, Carbon & Graphite and Rubber.

While standard products still account for fair amount of our business, we are well on our way to making customization our forte.

Providing widest range of precision industrial products at competitive prices with high level of customization makes Pragmata an automatic choice for customers who seek quality in communication, products, packaging and documentation.

ADVANTAGES OF WORKING WITH PRAGMATA

Promoters having industrial experience of over 2 decades

Wide range of industrial products

Flexible Manufacturing set up with lower MOQ

Knowledge of and access to various manufacturing processes

Highest levels of precision and customization

Prompt communication

Knowledge of documentation, including PPAP

Unparalleled customer service

Sampling / Prototyping to mass production

INDUSTRIAL FASTENERS

All types of Standard and Customized Industrial Fasteners such as Nuts, Bolts, Studs, Screws, Pins and Washers.

BOLTS : Hex Head Bolts (Full Threaded / Half Threaded), Round Head, Hanger Bolts, Solar Bolts, T Head, Bolts with Holes, Banjo Bolts, U Bolts, L Bolts, Eye Bolts

DIN Standards : DIN 931, DIN 933, DIN 912, DIN 6912, DIN 603, DIN 84, DIN 85, DIN 7984, DIN 7985, DIN 444, DIN 580, DIN 558, DIN 609, DIN 6914, DIN 610, DIN 7968, , DIN 960, DIN 961, DIN 913, DIN 914, DIN 915, DIN 916, DIN 444, DIN 186, DIN 188.

ISO Standards : ISO 7380, ISO 4014, ISO 4016, ISO 4017, ISO 4018, DIN 7990, ISO 8676, ISO 8765

STUDS : Plain Full Threaded Rods, Double End Threaded Rods, Studs with Chamfer, Undersized Studs

DIN Standards : DIN 2510, DIN 525, DIN 835, DIN 938, DIN 939, DIN 975, DIN 976

NUTS : Hex Nuts, Locknuts, Self Locking Nuts, Cage Nuts, Cap Nuts, Dome Nuts, Thin Nuts, Weld Nuts, Flanged Nuts, Eye Nuts, Pipe Nuts, Castle Nuts, Knurled Nuts.

DIN Standards : DIN 934, ISO 4032, DIN 6334, DIN 6915, DIN 439, DIN 936, DIN 582, DIN 546, DIN 555

ISO Standards : ISO 21670:2003, ISO 4032, ISO 4033, ISO 4034, ISO 7038, ISO 7042, ISO/R288-2

INDUSTRIAL PINS : Dowel Pins, Cylindrical Pins, Center-Grooved , Parallel Pins, Clevis Pins, Oil Pins, Pins with Slots, Sockets without head

DIN Standards : DIN 1, DIN 7, DIN 1471, DIN 1472, DIN 1473, DIN 1474, DIN 1475, ISO 2338, ISO 2339, DIN 6325, DIN 7343, DIN 7344, DIN 7346, DIN 7977, DIN 7978, DIN 7979.

ISO Standards : ISO 8734, ISO 8735, ISO 8736, ISO 8748, ISO 8749, ISO 8750, ISO 8752

WASHERS : Plain Washers, Spring Washers, Bevelled Washers, Large Diameter Washers, Lock Washers, Round Washers, Square Washers, Serrated Washers

DIN Standards : DIN 93, DIN 125, DIN 126, DIN 127, DIN 137, DIN 434, DIN 435, DIN 440, DIN 463, DIN 470, DIN 1440, DIN 1441, DIN 6319, DIN 6340, DIN 6372, DIN 6797, DIN 6798, DIN 6916, DIN 7349, DIN 7603, DIN 7980, DIN 9021, DIN 7989

SCREWS : Hex Head Screws, Machine Screws, Expansion Screws, Chipboard Screws, Wood Screws, Mushroom Head Screws, Counter Sunk Screws, Screws with Heads such as Slotted Phillip, Pozzi, Cross Recessed, Drilling Screws, Hex Cap Screws, Thumb Screws (Knurled) Round Head Screws, Self Tapping Screws, Locking Screws, Dowel Screws

DIN Standards : DIN 84, DIN 85, DIN 464, DIN 653, DIN 603, DIN 604, DIN 605, DIN 609, DIN 610, DIN 920, DIN 921, DIN 923, DIN 927, DIN 963, DIN 964, DIN 965, DIN 966, DIN 7969, DIN 7991, DIN 7513, DIN 7516, DIN 912, DIN 6912, DIN 7984, DIN 7985, DIN 558, DIN 931, DIN 933, DIN 960, DIN 6914

ISO Standards : ISO 7379, ISO 7968, ISO 7380, , DIN 961, ISO 4014, ISO 4016, ISO 4017, ISO 4018, ISO 8676, ISO 8765, ISO 7380

CUSTOMIZED FASTENERS : All the above mentioned fasteners can be customized to meet with your requirements. We specialize in manufacturing fasteners as per your drawings.

CUSTOM MANUFACTURED METAL COMPONENTS

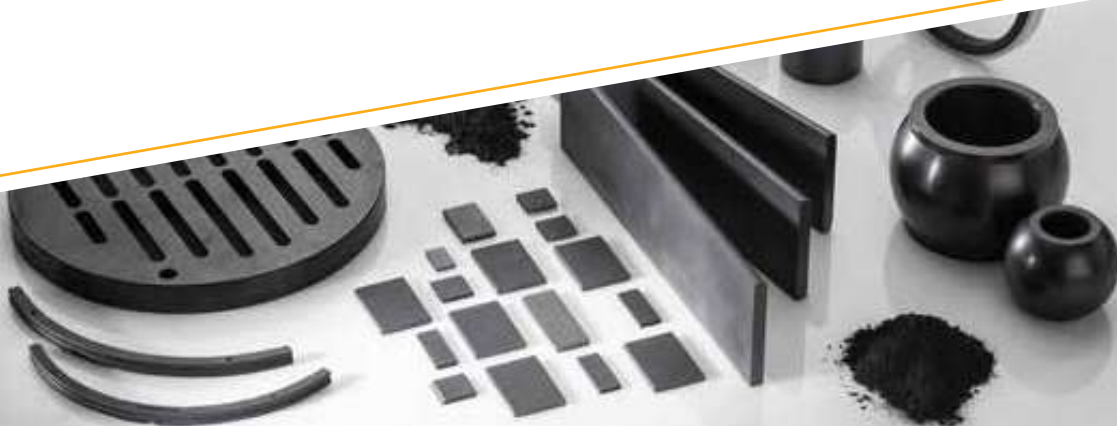
Pragmata has at its disposal, a gamut of facilities for all primary processes such as Cold & Hot Forging, Turning / Milling, Conventional and CNC Machining, Pressing, Bending and Laser Cutting.

With supporting infrastructure of secondary operations such as Threading, Forming, Milling, Broaching, Drilling, Roll Threading, Boring, Grooving, Heat Treatment & Welding etc., Pragmata boasts of a highly flexible set up that can offer parts as small as a screw of thread dia 2.5 mm to a shaft of a dia 250 mm, a rubber seal to aluminium die cast part, in a variety of materials such as Steel, Stainless Steel, Brass, Copper, Aluminium, Titanium, Monel, Inconel, Carbon & Graphite.

CARBON & GRAPHITE COMPONENTS

Machined Rotors for Vacuum & Air Pumps for printing machinery & fluid dispensing pumps, Offset printing & book-binding machines requiring oil-free vacuum/air. Vanes for Pumps having a capacity of producing 150 mbar-1 bar pressures need rotors with 4,6,8,12 or 16 vanes. Raw blanks are stocked to supply vanes immediately.

Accurately machined with reliable geometrical stability, Pragmata makes Exothermic Weld Moulds for rail connections to grounding application for metal to metal connection by exothermic reaction. Other Components such as Sealing rings, Thrust pads, Bush and Bearings, Graphite crucibles, Heaters, resistors, sleeves, Thermowells, jigs, fixtures, glass moulds, and many customized components.



ENGINEERING PLASTIC COMPONENTS

Serving various industrial purposes such as noise and weight reduction, longer product life, self lubrication, corrosion resistance, cost reduction, higher precision with closer tolerances etc., High Performance engineering plastics are emerging as strong substitutes of metal parts in Robotics, Aviation, Shipbuilding, Automobiles and other industries.

Catering to these industries, Pragmata offers Moulded, Machined and/or CNC Operated, custom made components in materials such as Polyamide - Nylon (PA 6, PA 6 6) / Cast Polyamide, Poly Phenylene Sulphide - PPS, PolyOxy Methylene (Modified) - POM, Polytetrafluoroethylene - PTFE, Polyetheretherketone - PEEK, Polyethersulphone - PES, Polysulfone - PSU, Polypropylene - PP, Polyurethane - PU, Ultra High Molecular Weight Polyethylene - UHMW, Self Lubricated Nylon (Nyloil ®), Polyethylene Terephthalate - PETP, Polyvinylidene Fluoride - PVDF

Pragmata can supply variety of engineering parts such as O-Rings, Seals, Sensor Cups, Tube Parts, Machinery Spares etc for the mentioned industries.



**VARIETIES OF RANGE
QUALITY ASSURANCE
COST EFFECTIVE**



METAL MATERIALS

CARBON & ALLOY STEELS

SAE Grade 2 (Metric class 4.6, 4.8 & 5.8) fasteners are made with AISI grades 1006, 1010, 1016, 1018, 1022 & 1035 being low carbon steels.

SAE Grade 5 (Metric class 8.8) fasteners with medium carbon steels with AISI grades 1038, 1541, 5132 & 5135 and also ASTM A194 Grade 2, 2H, & 2HM, ASTM A325, ASTM A449.

SAE Grade 8 (Metric class 10.9, 12.9) fasteners manufactured out of alloy steel with AISI grades 4137, 4140 (B7), 4340 & 5140 and also ASTM A307 - Grade A/B/C, ASTM A194 Grade 4, 7, & 7M, ASTM A193 B7 & B7M, ASTM A320 Grade L7, L43 falling into this category.

STAINLESS STEELS

Austenitic stainless steels, including AISI grades 302, 303 (A1), 304 (A2), 304L (A2), 310, 316 (A4), 316L (A4), 316Ti (A5), 316Cb (A5), 317 (A4), 317L (A4), 320, 321 (A3), 347 (A3), 348 (A3) & 904L (Uranus B6) and also ASTM A194 Grade 8, 8M, ASTM A193 B8 & B8M, ASTM A320 Grade B8 & B8M.

Martensitic stainless steels include AISI grades 410 (C1), 416 (C4), 420 (C1) & 431 (C3).

Ferritic Stainless Steel grades 430 (F1) & 430F.

ALUMINUM:

Fasteners and Components are usually manufactured from AISI grades 2024, 6061, 6262 & 7075.

NON-FERROUS :

Pragmata uses various grades of Brass, Nickel, and Titanium, Cupro nickel 70/30 & 90/10, Copper, Silicon bronze, Phosphor bronze, C63000, Aluminium bronze, Manganese bronze,.

SPECIAL MATERIALS :

Super alloys such as Sanicro 28, MONEL 400® (UNS N04400), MONEL K 500® (UNS N05500), INCONEL 600® (UNS N06600), INCONEL 718® (UNS N07718), INCONEL X-750® (UNS N07750), INCOLOY 825® (UNS N08825), HASTELLOY B-2® (UNS N10665), HASTELLOY® C Series

PROCESSES

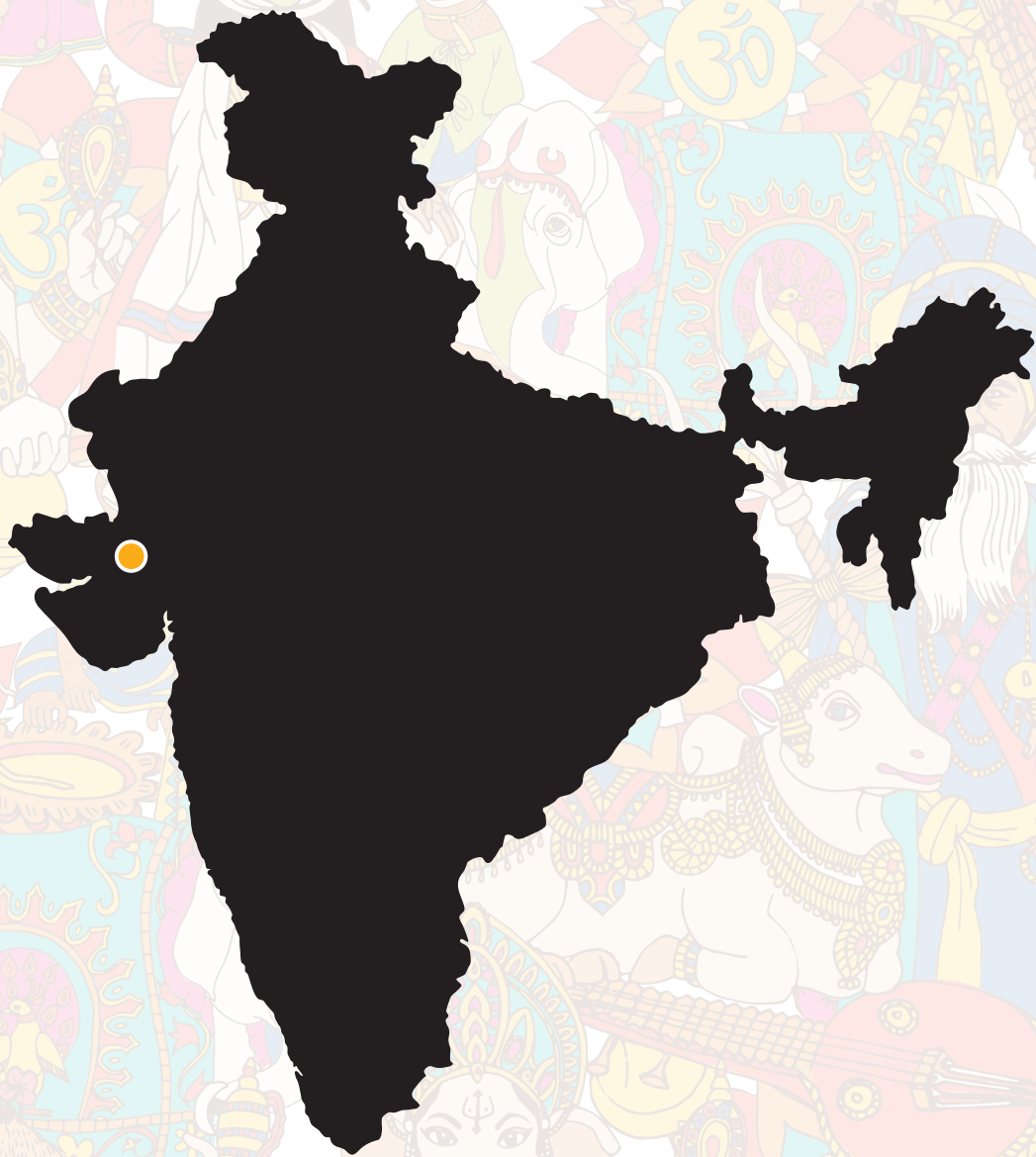
Pragmata offers a gamut of manufacturing processes that can be combined to make the perfect engineering part as per customer drawing.

PRIMARY PROCESSES	SECONDARY OPERATIONS
COLD FORGING & COLD FORMING	THREAD ROLLING
HOT FORGING	GROOVING, DRILLING AND VERTICAL MILLING
CONVENTIONAL AND CNC TURNING	BORING AND BROACHING
CONVENTIONAL MILLING AND VMC	SURFACE, CYLINDRICAL AND CENTRE-LESS
PRESSING & BENDING	GRINDING
LASER CUTTING	DEBURRING
STAMPING & WELDING	SHEARING

HEAT TREATMENT AND PLATING

HEAT TREATMENT	PLATING
QUENCHING AND TEMPERING	ZINC WHITE / YELLOW / BLUE / GREEN / BLACK
THROUGH HARDENING	
NORMALISING	BORING AND BROACHING
SOLUTION ANNEALLING	NICKLE
NITRIDING	ELECTROPLATING
PRECIPITATION HARDENING	ZINC PHOSPHATING
CASE HARDENING	CR6 FREE TRIVALENT PASSIVATION
	DACROMET
	HOT DIP GALVANIZING
	GEOMET ETC AND
	MICRO ENCAPSULATION SUCH AS LOCTITE, THREE BOND, PRECOAT
	OTHER AS PER CUSTOMER REQUIREMENT.





LOCATE US

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