Tie rods with rolled threads at both ends

Made to drawing: diameter and length specified in the enquiry, subject to manufacturing feasibility. Two rolled threaded ends and a smooth shank smaller than the thread major diameter.

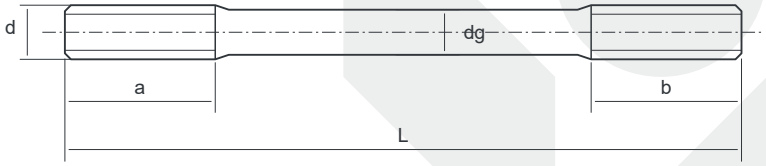
Rods and tie rods



Representative photograph. The approved drawing defines the supplied geometry.

Execution: Rolled threaded ends · Thread: Metric / inch

Technical drawing and legend



d	Nominal thread diameter; actual major diameter depends on the thread tolerance.
dg	Smooth shank diameter, smaller than the thread major diameter in this execution. Dimension and tolerance according to the supply drawing.
a	Left-hand threaded portion shown in the diagram; specify any incomplete thread/runout separately.
b	Right-hand threaded portion shown in the diagram; not necessarily equal to a.
L	Overall end-to-end length, specified in the enquiry.

Not to scale. Chamfers, transitions and thread runout according to the supply drawing.

Threads and dimensions

There is no fixed selection of diameters or lengths: state the required dimensions and attach the drawing. Feasibility depends on material, manufacturing process and required tolerances.

Specify d, dg, a, b and L separately. There is no universal value for dg: it depends on blank preparation and thread rolling. Specify the handedness and pitch of each end.

System	Designation	Required specification
Metric coarse	M	Nominal diameter and pitch P in mm
Metric fine	M × P	Pitch must be specified explicitly
UNC / UNF / 8UN	Inch	Diameter, series, threads per inch (TPI) and thread class
Whitworth	Inch	Specify the series; not automatically interchangeable with UNC/UNF

Materials and finishes

Material / specification	Grades and conditions
Carbon and alloy steels	Specify property class, steel and treatment. Custom executions; material designation does not automatically establish a mechanical property class.
A2 and A4 stainless steel	Specify execution and property class; documented by Piscetta, King and Tobsteel.
ASTM A193	B7, B7M, B16; B8 and B8M class 1 or 2; B8A, B8MA, B8R, B8RA. Specify grade, class and project requirements.
ASTM A320	L7, L7M, L43; B8 and B8M class 1 or 2; B8A, B8MA. Requirements and testing according to specification.
ASTM A453 grade 660	Specify class and metallurgical condition in the enquiry.
Brass to drawing	Double-ended tie rods documented by Magnani; verify thread rolling and shank geometry for the requested alloy.
Other materials to drawing	42CrMo4, 25CrMo4, 41CrS4, 32CrB4, S355J2 and AISI 304/316 stainless documented by Bonfatti for partly threaded tie rods. Verify the requested rolled execution for each material.

Materials, ASTM grades and classes are separate alternatives, not combinations available for every diameter, pitch or process. For rolled tie rods, manufacturability and final properties require verification. Dueemme confirms execution and availability in the quotation.

Finishes

Plain/natural; for steels, electroplated zinc, hot-dip galvanizing, zinc-nickel, phosphating or PTFE/Xylan coatings according to specification. Select coating, thickness and thread tolerance compatible with material, class and service; not every finish applies to every variant.

Supply specification

Tolerances and inspection

Specify the thread standard, tolerance class, condition before/after coating and required inspection. Do not apply a single tolerance to metric threads, inch threads, polymers and rolled executions. Approved drawing dimensions and tolerances govern custom parts.

Oil & gas service and documentation

State the project specification, full grade and class, service temperature and environment, coating, marking and required documentation. Any NACE/ISO 15156, PED or inspection-certificate requirements must be explicitly agreed; an ASTM designation alone does not establish compliance.

Documentation

Document	Status
Declaration of conformity	Subject to order agreement
Material certificate	Subject to order agreement
EN 10204 2.2 test report	Subject to order agreement
EN 10204 3.1 inspection certificate	Subject to order agreement
Dimensional inspection report	Subject to order agreement
Coating report	Subject to order agreement
Other documentation	Subject to order agreement

Batch documents are not automatically included: specify your requirements in the RFQ.