

# OTHER THREAD FORMS AND SPECIFICATIONS

Shown here are some of the more regularly used thread forms which are gauged using our products, all available on short lead times. The thread proportions are shown for guidance and we should be consulted for detailed information.

Coventry Gauge have a comprehensive library of thread gauge standards. We will be pleased to advise on the correct specification for your application.

## Thread Gauges to Japanese (JIS) specification

The JIS system is rather different to BS and ANSI. Some of the main specifications are summarised here.

- JIS-B-0251 Metric coarse pitch series
- JIS-B-0252 Metric fine pitch series
- JIS-B-0253 Pipe threads for pressure tight joints
- JIS-B-0254 Pipe threads for non pressure tight joints
- JIS-B-0254 Unified threads coarse pitch series
- JIS-B-0255 Unified threads fine pitch series

It should be noted that the gauging philosophy of BS, ANSI and JIS can be quite different so the required specification should always be clearly stated.

## Multi-Start Gauges

Plug and ring gauges for testing multi-start threads, within the range of practicality, can be supplied.

Please submit details of your application to our technical department for evaluation.

## Wire Insert Gauges

Screw plug gauges are available for testing pre-insert tapped holes for helicoil inserts and wire inserts.

When ordering gauges for pre-insert threads, it is important to state the type of insert to be fitted i.e. Helicoil inserts to Armstrong data sheets, or wire inserts to British Standard specifications.

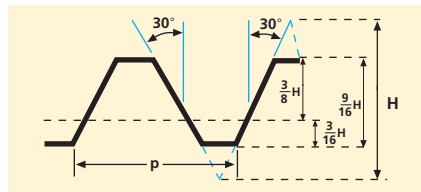
**MJ thread:** BS 6293 / ISO 5855  
Controlled root radius, for aerospace applications.

External threads are designated 4h/6h  
Internal threads <math>< \varnothing</math> 5mm 4H/6H  
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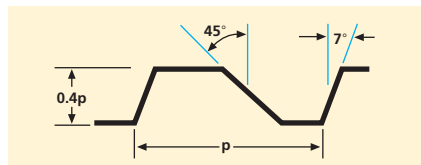
**UNJ thread:** BS 4084  
Controlled root radius, for aerospace applications.

External threads are designated 3A  
Internal threads are designated 3B

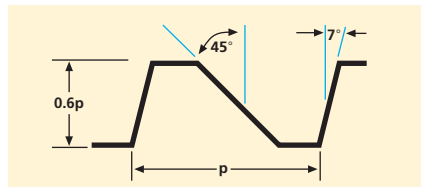
**MJ:** BS 6293 and **UNJ:** BS 4084



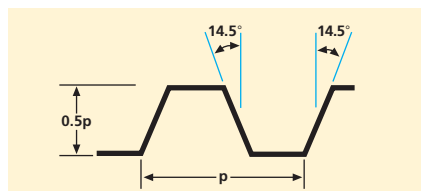
**Buttress:** BS 1657



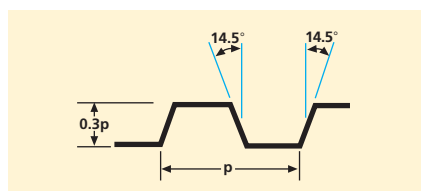
**Buttress:** ANSI B1.9



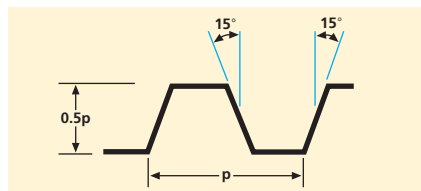
**Acme:** ANSI/ASME B1.5



**Stub Acme:** ANSI/ASME B1.8

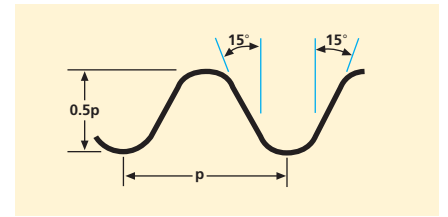


**Trapezoidal:** BS 5346-BS 919 Pt5 DIN 103



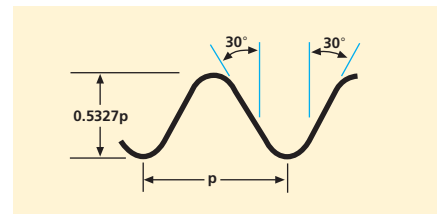
**Round thread:** DIN 405

External product thread crest/root radii 0.23851p. Internal product thread crest radius 0.25597p/root radius 0.22105p.



**Cycle thread:** BS 811/ISO 6698-ISO 1502

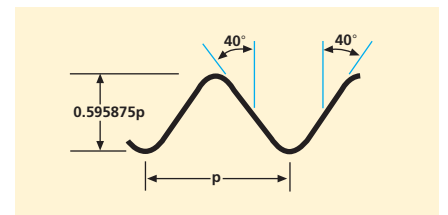
Controlled crest/root radii 0.1667p.



**German Conduit (Pg):**

DIN 40430 - DIN 40431

Controlled crest/root radii 0.107p.

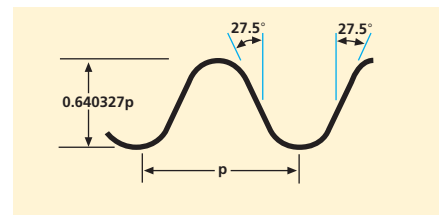


**British Standard Conduit:**

BS 31-BS 919:Pt2

Controlled crest/root radii 0.137329p

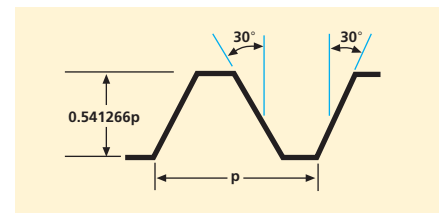
Standard Whitworth form



**Metric Conduit:**

BS 4568:Pt1 - BS 919:Pt3

Standard ISO metric form



# TiN COATED AND HARD CHROME THREAD GAUGES

## TiN Coated Screw Plug Gauges

Titanium Nitride is a ceramic coating which is applied by pvd (Physical Vapour Deposition) to a high speed steel substrate. The coating is very hard (2300 HV 0.05), abrasion resistant and corrosion resistant, and is applied at a temperature of 500°C to the substrate.

Coating thickness is typically 2 to 5 microns.

The TiN coating is a ceramic, so when it is in direct contact with a ferrous component, there is no galling. Thus, wear life of the coated gauge is significantly higher... between 5 and 7 times the life of a conventional gauge, depending on application.

These high-performance, high-specification gauges are available from stock for standard sizes and on short lead times for make-to-order.

TiN coating has the additional benefit that, as the gauge wears, the TiN gold colour fades, providing a visual indication that the gauge is at the end of its wear life.

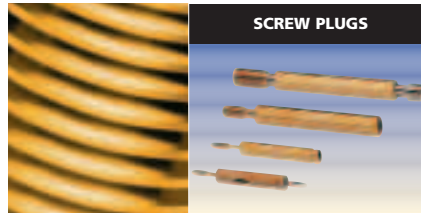
## TiN Coated Screw Ring Gauges

TiN Screw Rings are supplied to order and have similar benefits to screw plugs. Consult the company for further details.

## HARD CHROME SCREW PLUGS AND SCREW RINGS

These are made-to-order and provide a hard, wear-resistant coating to the gauge. Plating is typically 6 microns on diameter and gauge life is extended by a factor of 2 or 3, compared with a conventional gauge,

Hard chrome can be precisely applied to both screw plug and ring gauges up to and including M200, and is available for standard and special sizes on short lead times.

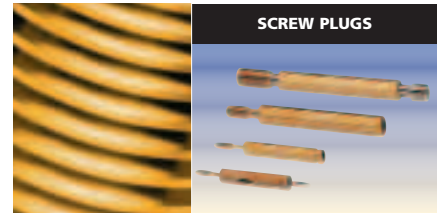
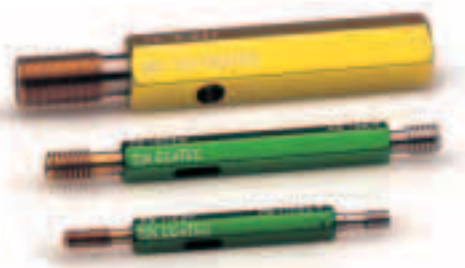


**SCREW PLUGS**

SIZE		Class of fit		
		GO 6H	NOGO 6H	'E' 6H
M2.5X0.45	TiN	0338T	-	0338AT
M3.X0.50	TiN	0340T	-	0340AT
M4.X0.70	TiN	0344T	-	0344AT
M5.X0.80	TiN	0348T	-	0348AT
M6.X1.00	TiN	0350T	-	0350AT
M8.X1.25	TiN	0354T	-	0354AT
M10.X1.50	TiN	0358T	-	0358AT
M12.X1.75	TiN	0362T	-	0362AT
M14.X2.00	TiN	0364T	-	0364AT
M16.X2.00	TiN	0366T	-	0366AT
M18.X2.50	TiN	0368T	-	0368AT
M20.X2.50	TiN	0370T	-	0370AT
M22.X3.00	TiN	0372T	-	0372AT
M24.X3.00	TiN	0374T	-	0374AT

M3.X0.35	TiN	0390T	-	0390AT
M4.X0.50	TiN	0392T	-	0392AT
M4.X0.75	TiN	0394T	-	0394AT
M5.X0.50	TiN	0398T	-	0398AT
M6.X0.75	TiN	0400T	-	0400AT
M8.X0.75	TiN	0404T	-	0404AT
M8.X1.00	TiN	0406T	-	0406AT
M10.X1.00	TiN	0410T	-	0410AT
M10.X1.25	TiN	0412T	-	0412AT
M12.X1.00	TiN	0416T	-	0416AT
M12.X1.25	TiN	0418T	-	0418AT
M12.X1.50	TiN	0420T	-	0420AT
M14.X1.00	TiN	0422T	-	0422AT
M14.X1.50	TiN	0424T	-	0424AT
M16.X1.50	TiN	0426T	-	0426AT
M18.X1.50	TiN	0428T	-	0428AT
M18.X2.00	TiN	0430T	-	0430AT
M20.X1.50	TiN	0432T	-	0432AT
M20.X2.00	TiN	0434T	-	0434AT
M22.X1.50	TiN	0452T	-	0452AT
M22.X2.00	TiN	0436T	-	0436AT
M24.X2.00	TiN	0438T	-	0438AT

Double-ended plug gauges are usually supplied as a TiN coated go and conventional tool steel no go.



**SCREW PLUGS**

SIZE		Class of fit		
		GO 2B	NOGO 2B	'E' 2B
N°4-40	UNC TiN	0076T	-	0076TB
N°5-40	UNC TiN	0079T	-	0079TB
N°6-32	UNC TiN	0081T	-	0081TB
N°8-32	UNC TiN	0084T	-	0084TB
N°10-24	UNC TiN	0087T	-	0087TB
N°10-24	UNC TiN	0090T	-	0090TB
1/4"-20	UNC TiN	0092T	-	0092TB
5/16"-18	UNC TiN	0095T	-	0095TB
3/8"-16	UNC TiN	0098T	-	0098TB
7/16"-14	UNC TiN	0100T	-	0100TB
1/2"-13	UNC TiN	0103T	-	0103TB
9/16"-12	UNC TiN	0106T	-	0106TB
5/8"-11	UNC TiN	0109T	-	0109TB
3/4"-10	UNC TiN	0111T	-	0111TB
7/8"-9	UNC TiN	0113T	-	0113TB
1"-8	UNC TiN	0116T	-	0116TB

SIZE		Class of fit		
		GO 2B	NOGO 2B	'E' 2B
N°4-48	UNF TiN	0010T	-	0010TB
N°5-44	UNF TiN	0013T	-	0013TB
N°6-40	UNF TiN	0015T	-	0015TB
N°8-36	UNF TiN	0017T	-	0017TB
N°10-32	UNF TiN	0019T	-	0019TB
1/4"-28	UNF TiN	0024T	-	0024TB
5/16"-24	UNF TiN	0027T	-	0027TB
3/8"-24	UNF TiN	0030T	-	0030TB
7/16"-20	UNF TiN	0033T	-	0033TB
1/2"-20	UNF TiN	0035T	-	0035TB
9/16"-18	UNF TiN	0038T	-	0038TB
5/8"-18	UNF TiN	0041T	-	0041TB
3/4"-18	UNF TiN	0044T	-	0044TB
7/8"-14	UNF TiN	0047T	-	0047TB
1"-12	UNF TiN	0050T	-	0050TB

SIZE		GO	NOGO	'E'
G1/8	TiN	0180NT	-	0180ANT
G1/4	TiN	0182NT	-	0182ANT
G3/8	TiN	0184NT	-	0184ANT
G1/2	TiN	0186NT	-	0186ANT
G3/4	TiN	0190NT	-	0190ANT



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Calibration Services available on all our products.

