

主なねじ用限界ゲージの使い方

①ISOゲージ方式用ゲージ

ISO等級のメートルねじ、管用平行ねじ(G)用のねじゲージに最適

GP, GR……無理なく手でねじ込み、通り抜けること

NP, NR……無理なく手でねじ込み、2回転を超えてねじ込まれないこと

GW, NW……無理なく手でねじ込んだ時、1回転を超えてねじ込まれないこと

②旧来のJISゲージ方式用ゲージ

メートルねじ(1~3級)、ユニファイねじ、管用平行ねじ(PF)用などのゲージに最適

GP, GR……無理なく通り抜けること

WP, WR……2回転以上ねじ込まれないこと

IP, IR……2回転以上ねじ込まれないこと

GW……通り抜けないこと

詳しくは対応するJISをご参照ください。

ねじ用限界ゲージの形状

メートルねじ用限界ゲージ、ユニファイねじ用限界ゲージの形状は、JIS B 3102をご参照ください。

ご注文に際して

ご注文の際は、以下の点をご指示ください。

- 1.ねじの種類、ねじの呼びおよびピッチまたは山数
- 2.左ねじ、多条ねじの場合は、その指示
- 3.ねじの精度等級(6H、6gや2級など)
- 4.ゲージの種類(ゲージ記号のGP, NP(IP), GR, NR(IR)などの別、工作用・検査用の別)
- 5.特にプラグゲージの両頭型を要望される時は、その指示
- 6.特殊な寸法、形状、表示または外国規格を要望される時は、その内容
- 7.規格外のねじの場合は、ねじの許容限界寸法および公差とねじ部長さ
- 8.メッキ前用ゲージの場合は、メッキ代が直径でいくらか

【例】・メートルねじ(ISO等級)

M5×0.8-6H GP×NP

(注:両頭型はGPとNPの間を×で表示します)

・メートルねじ(旧来の等級)

M8P1.25 GR II-IR II またはGR2-IR2

(注:通り・止りゲージのセットは2つのゲージ記号の間をハイフンで表示します)

・ユニファイ左ねじ

左 $\frac{3}{8}$ -16UNC-2A GR-WR

・管用平行ねじ

G $\frac{1}{2}$ GP-NP

(注:片頭型で通り・止りゲージのセットを表しています)

・多条ねじ

M16P1.5 2条 GP2

・メッキ前用ねじ

M6P1.0 メッキ前 GR2-IR2

メッキ代:直径で0.02mm

- 9.耐摩耗性のゲージも承りますので、ご相談ください。

How to use main limit gauges for threads

①Gauges for ISO gauge system

Applies to thread gauges for metric threads of ISO grade and straight pipe thread gauges (G).

GP, GR……It is required that they can be screwed in and passed through by hand without difficulty.

NP, NR……It is required that they can be screwed in by hand without difficulty and cannot be screwed in by more than 2 turns.

GW, NW……It is required that, when they are screwed in by hand without difficulty, they cannot be screwed in by more than one turn.

②Gauges for traditional JIS gauge system

Applies to gauges for metric threads (grade 1 to grade 3), unified threads and straight pipe threads (PF).

GP, GR……It is required that they can pass through without difficulty.

WP, WR……It is required that they cannot be screwed in by more than 2 turns.

IP, IR……It is required that they cannot be screwed in by more than 2 turns.

GW……It should not pass through.

For detailed information, refer to the corresponding JIS.

Forms of limit gauges for threads

For the form of limit gauges for metric threads and limit gauges for unified screw threads, refer to JIS B 3102.

Ordering instructions

When ordering, specify the following data :

- 1.Type of thread, nominal designation and pitch of thread or threads per inch (25.4mm)
- 2.Designation of left-handed thread and multiple thread screw
- 3.Accuracy grades of thread (6H, 6g, grade 2, etc.)
- 4.Type of gauges (gauge symbols : GP, NP (IP), GR, NR (IR), and designation of applications : Machine working and inspection)
- 5.Especially when requesting double-ended plug gauge, specify such designation.
- 6.When requesting special size, form indication or foreign standard, specify such data.
- 7.For nonstandardized threads, specify limit of size and tolerance of thread and thread length.
- 8.For gauges to be used prior to plating, specify margin for plating in diameter.

【Example】

•Metric thread (ISO grade)

M5×0.8-6H GP×NP

(Note : Double-ended gauge is expressed by putting "×" between GP and NP.)

•Metric thread (Traditional grade)

M8P1.25 GR II-IR II or GR2-IR2

(Note : A set of GO and NOT GO gauges is expressed by putting a hyphen between these 2 gauge symbols.)

•Unified left-handed thread

LH 3/8-16UNC-2A GR-WR

•Straight pipe thread

G1/2 GP-NP

(Note : It expresses a set of GO and NOT GO gauges of a single-ended type.)

•Multiple thread screw

M16P1.5 2-start thread GP2

•Thread for use before plating

M6P1.0 Before plating GR2-IR2

Margin for plating : 0.02 mm in diameter

- 9.Wear-resistant gauges are available on request. Consult KURODA.