

Limit plug gauges

Nominal sizes
0.5 mm - 250 mm
for GO and NO GO
inspection of bores.

Construction dimensions acc.
DIN 2245/2246/2247/2248/2249

Handle mounting
as per works design:

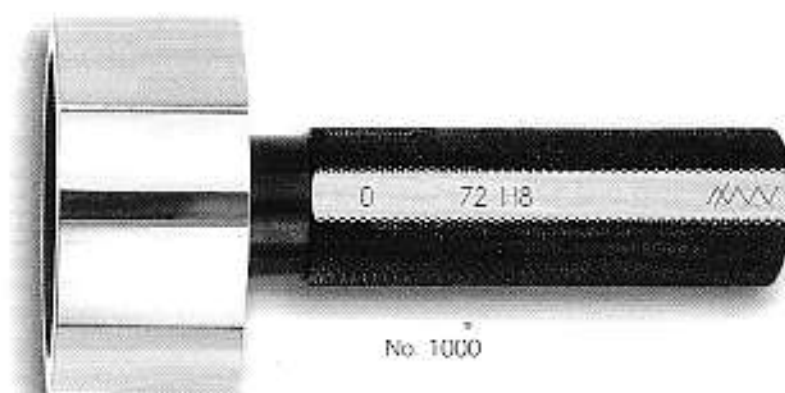
- ◆ Nominal diameter
0.5 mm - 70 mm on one handle
- ◆ Nominal diameter
above 70 mm split in 2 parts

Executions:

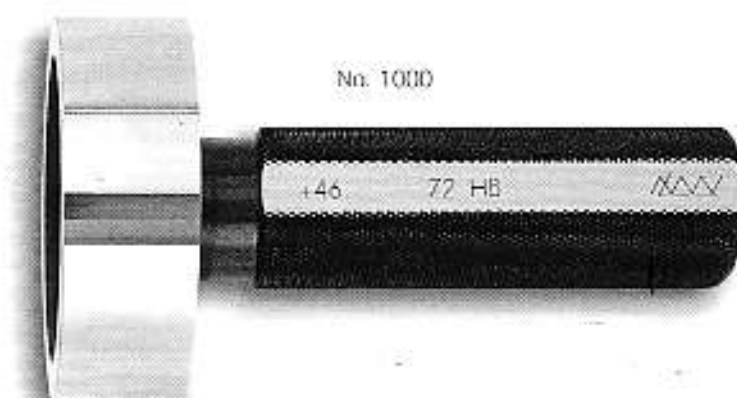
- | | |
|---------------------|--|
| No.
1000 | GO and NO GO part
hardened gauge steel |
| No.
1001 | GO part hard chromed
NO GO part hardened
gauge steel |
| No.
1002 | GO and NO GO part
hard chromed |
| No.
1003 | GO part tungsten carbide
NO GO part hardened steel |
| No.
1004 | GO and NO GO part
tungsten carbide |

Available on request:

- ◆ all desired intermediate sizes
- ◆ limit plug gauges with
extended measuring body
or with extended handle
- ◆ plug gauges with ventilation bores,
ventilation grooves resp.
- ◆ plug gauges with
piloting collar groove
- ◆ plug gauge as acceptance gauge



No. 1000



No. 1000



No. 1002

Flat
limit bore gauges

**Nominal diameters
8 mm - 22 mm
for GO and NO GO
inspection of bores.**

Construction dimensions
acc. works standard

Manufacturing accuracy
acc. DIN 7162/7164

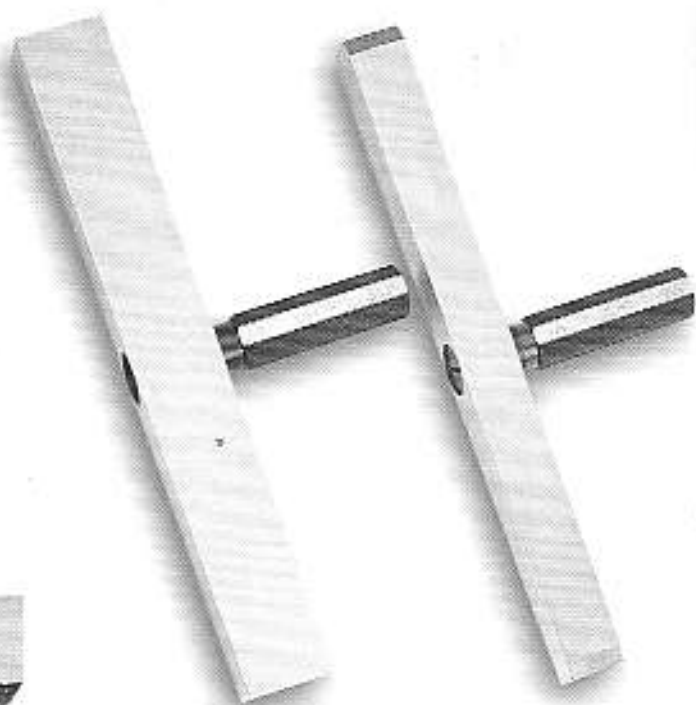
Measuring surfaces hardened,
ground and lapped

Available Executions:

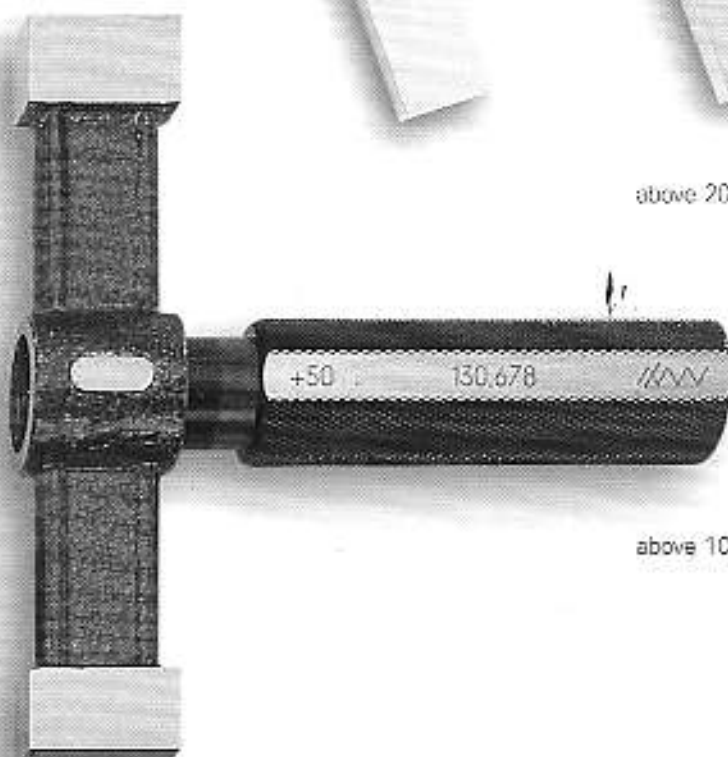
No. 1040 Nominal diameter
from 8 mm to 100 mm
double - sided forged blank

No. 1041 Nominal diameter above
100 mm to 200 mm
forged blank

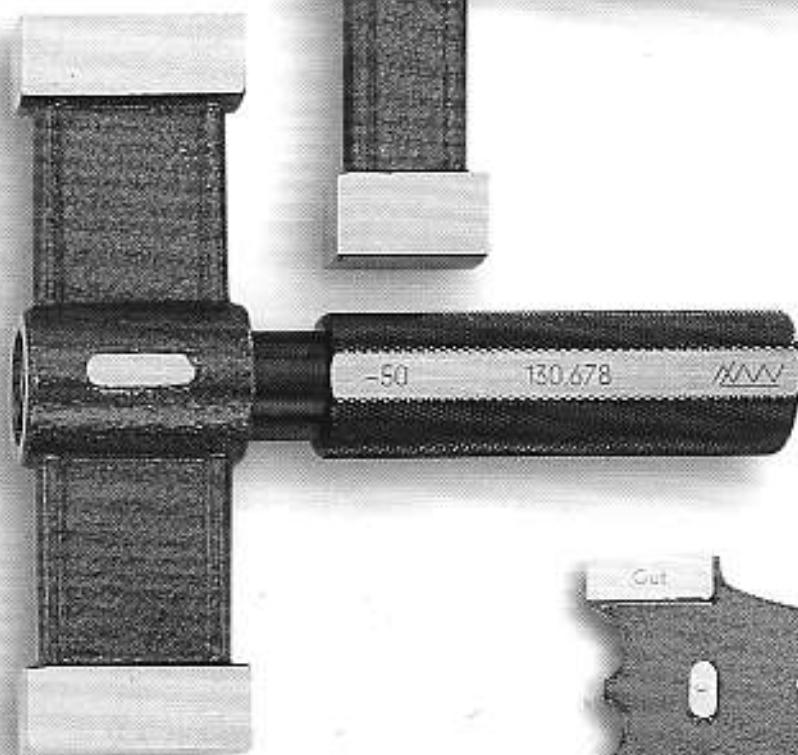
No. 1041 Nominal diameter above
200 mm to 500 mm
Measuring body in hardened
gauge steel



No. 1041
above 200 - 500 mm



No. 1041
above 100 - 200 mm



No. 1040



Gauges for cylindrical fits, taper- and gear toothing gauges, measuring gauges

Square limit plug gauges

for nominal size
range 1 mm - 70 mm

made from wear-resistant
gauge steel,
hardened, aged
measuring surfaces super finished

NO GO part with 2 measuring
surfaces

Executions:

No. 1020 GO and NO GO part
hardened gauge steel

No. 1021 GO and NO GO part
hard chromed

On orders please indicate:

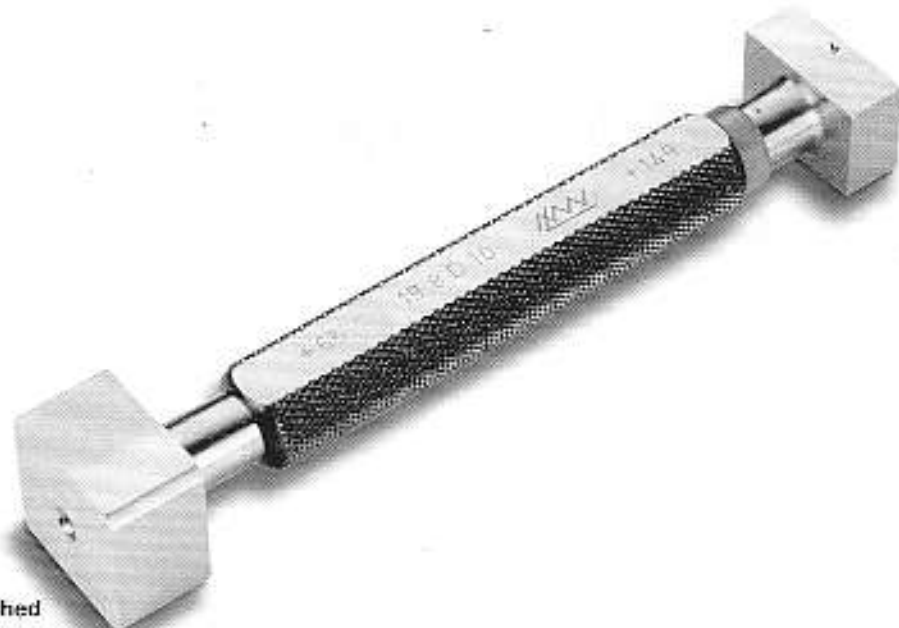
Nominal size and fit or tolerance
of workpiece

e.g. 10 H7 or
10^{+0.02}

Gauge sizes and manufacturing
tolerances according to
DIN 7162, 7163 and 7164.

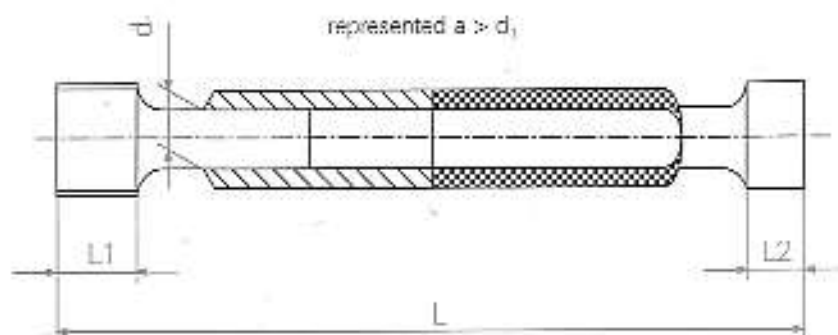
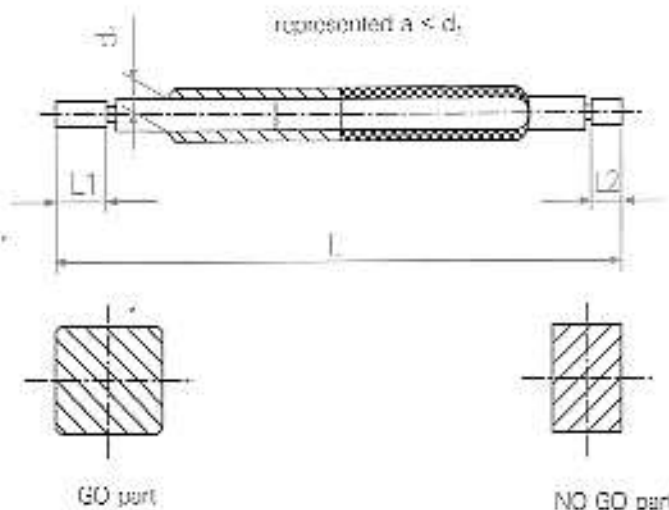
Next to those standard dimensions
we also manufacture plug gauges
in special lengths, NO GO part fully
square and gauges after customer
drawings

Square ring gauges on request.



Construction dimensions (works standard)

Nominal size range - a	d1	L	L1	L2
1 to 2.5	2.5	62.5	6.5	4
above 2 to 4	2.5	65	8	5
above 4 to 8	4	70.5	10	6.5
above 8 to 9.5	5.5	80	10	8
above 9.5 to 11	7	97	10	8
above 11 to 12.5	7	99	12	8
above 12.5 to 15	9	110	12	8
above 15 to 17	12	124	12	8
above 17 to 32	12	130	16	10



The perfect inspection of interchangeable and unconditionally combining threads is ensured by use of thread limit gauges. External and internal threads correspond to the standard if they are found to be in tolerance when inspected with thread limit gauges according to the standard.

General on thread gauges

As far as combining capability is concerned a thread depends on 4 determining sizes:

- ◆ External diameter
- ◆ Effective (also pitch or flank \pm) diameter
- ◆ Minor diameter
- ◆ Pitch
- ◆ Half angle

Since effective diameter, half angle and pitch depend geometrically on each other errors of the pitch and of the half angle always become perceptible at the combination of external and internal threads in the effective diameter (mating flank diameter). According to the principle of Taylor the GO-gauges are carried out always with the full profile (form-ideal counterpart). The length of the thread of GO-gauges should amount to at least 80% of the screw-in length of the thread combination to recognize pitch errors.

For the efficient inspection of threads in the practice are required:

1. For the internal thread:
 - Limit thread plug gauges
2. For the external thread:
 - Limit thread caliper gauges
 - GO and NG GO thread ring gauges
3. For the setting of
 - thread limit caliper gauges:
 - Limit thread setting gauges
4. For wear inspection on
 - thread ring gauges:
 - Wear inspection plug gauges
5. For the inspection of the
 - minor diameter on internal threads:
 - Plain plug gauges

Thanks to the introduction of the metric ISO-thread the interchangeability of the metric threads is ensured. The ISO system for thread tolerances provides several qualities for tolerances of the major diameter, of the effective diameter and of the minor diameter (DIN 13, Sheets 14 and 15).

To reduce the number of gauges and tools it is recommended to preferably use tolerance zones as per Table 5 and 6 according to DIN 13, Sheet 14. The following table shows for screw-in group N the standardized

Screw-in group N					
Tolerance class	Tolerance zones for external thread				
fine	-	-	4c	4j	4h
medium	-	-	6e	6g	6h
coarse	-	-	8e	8g	
Tolerance class	Tolerance zones for internal thread				
fine	5G		5H		
medium	6G		6H		
coarse	7G		7H		

tolerance zones for the tolerance classes fine, medium and coarse. The marked fields should be preferred.

If the tolerance zones for the effective diameter and the major diameter of the external thread or the effective diameter and the minor diameter of the internal thread are equal it is not necessary to repeat the specification of the tolerance zone.

sample:

M12-6H Tolerance zone for the effective and the minor diameter.

For different tolerances of the effective diameter and of the major diameter on external thread, minor diameter on internal threads respectively:

M12-4H 6H
4H Tolerance zone for effective diameter
6H Tolerance zone for minor diameter

For threads without specification of the screw in group always screw-in group „N“ applies.

Thread gauges for metric thread according to DIN 13

Executions:

Limit thread plug gauge
DIN 2280

GO thread limit plug gauge
DIN 2281, Part 1 and Part 2

NO GO thread plug gauge
DIN 2283, Part 1 and Part 2

GO thread ring gauge
DIN 2285, Part 1

NO GO thread ring gauge
Limit thread caliper gauge
Limit thread setting gauge
Thread wear checking plug gauge
DIN 2299, Part 1

Gauges for left-hand thread and sizes not included in the following overviews or gauges with tolerance zones not standardized according to DIN 13 are also manufactured on request.



Tolerances

In case of no indication of tolerance class in the order the intensively framed tolerance class of the table becomes supplied. For thread ring gauges of round threads DIN 405 the tolerance class has to be indicated. NO GO thread plug gauges or NO GO parts

of limit thread plug gauges according to ANSI B1.2 for Unified inch screw threads are supplied with „minus“ tolerance. If a „plus“ tolerance is required it has to be stated on the order.

Metric ISO-thread DIN 13

Tolerance zones screw-in group „N“ (normal)

Gauge dimensions DIN ISO 1802

Tolerance zone	Tolerance zone external thread	Tolerance zone internal thread	Surface condition
fine (f)	4 h	5 H	blank or thin phosphate coating
medium (m)	for threads 1-1.4 mm 6 h	for threads 1-1.4 mm 5 H	blank, phosphorized or for thin galvanic protection layer
	for threads more than 1-1.4 mm 6 g	for threads more than 1-1.4 mm 6 H	
coarse (g)	8 g	7 H	

British Standard Withworth threads**British Standard fine threads BS 84**

Gauge dimensions BS 919

External thread	close class	medium class*	free class*
Internal thread	medium class	normal class	normal class

* GO thread ring gauges, NO GO thread ring gauges and limit thread caliper gauges as well as limit thread setting gauges for external threads up to 3/4" nominal size are supplied in the tolerance classes „medium“ and „free“ and in the outfit „unplated“. If the outfit „aluminum“ is required this has to be indicated separately when ordering.

Cylindrical pipe threads DIN ISO 228 Part 1

Gauge dimensions DIN ISO 228 Part 2

Tolerance class	internal thread / bolt	medium (m) A	coarse (g) B
Tolerance class	internal thread / nut	medium (m)	--

ISO-metric trapezoidal threads DIN 103

Tolerance zones screw-in group „N“ (normal)

Gauge dimensions DIN 103 Part 9

Tolerance classes	Tolerance zone external thread	Tolerance zone internal thread
medium (m)	7 g	7 H
coarse (g)	8 g	9 H

Round thread DIN 405-1, 405-2

Tolerance zones screw in group „N“ (normal)

Gauge dimensions DIN 405-3

Tolerance zone external thread	Tolerance zone internal thread
7 h and 7 e	7 H

Unified inch screw threads ANSI B1.1

Gauge dimensions thread plug gauges ANSI B 1.2

UNC-UNF-4 UN-6 UN-12 UN-16 UN-20 UN-28 UN-32 UN-UNS (special thread)

Thread ring gauges BS 919

Tolerance classes			
External thread (bolt)	1 A	2 A	3 A
Internal thread (nut)	1 B	2 B	3 B

Thread gauges
for
metric thread,
coarse
No. 000

Nominal thread Ø			Limit thread plug gauge	GO thread plug gauge	NO GO thread plug gauge	GO or NO GO thread ring gauge	Limit thread setting gauge	Limit thread caliper gauge	Limit plug gauge for minor diameter
M	5	x 0.75	x	x	x	x	x	x	x
M	1	(x 0.25)	x	x	x	x	x	-	x
M	1.1	(x 0.25)	x	x	x	x	x	-	x
M	1.2	(x 0.25)	x	x	x	x	x	-	x
M	1.4	(x 0.3)	x	x	x	x	x	-	x
M	1.6	(x 0.35)	x	x	x	x	x	-	x
M	1.8	(x 0.35)	x	x	x	x	x	-	x
M	2	(x 0.4)	x	x	x	x	x	-	x
M	2.2	(x 0.45)	x	x	x	x	x	-	x
M	2.5	(x 0.45)	x	x	x	x	x	-	x
M	3	(x 0.5)	x	x	x	x	x	-	x
M	3.5	(x 0.6)	x	x	x	x	x	-	x
M	4	(x 0.7)	x	x	x	x	x	-	x
M	4.5	(x 0.75)	x	x	x	x	x	-	x
M	5	(x 0.8)	x	x	x	x	x	-	x
M	6	(x 1.0)	x	x	x	x	x	-	x
M	7	(x 1.0)	x	x	x	x	x	-	x
M	8	(x 1.25)	x	x	x	x	x	-	x
M	9	(x 1.25)	x	x	x	x	x	-	x
M	10	(x 1.5)	x	x	x	x	x	-	x
M	12	(x 1.75)	x	x	x	x	x	-	x
M	14	(x 2.0)	x	x	x	x	x	-	x
M	16	(x 2.0)	x	x	x	x	x	-	x
M	18	(x 2.5)	x	x	x	x	x	-	x
M	20	(x 2.5)	x	x	x	x	x	-	x
M	22	(x 2.5)	x	x	x	x	x	-	x
M	24	(x 3.0)	x	x	x	x	x	-	x
M	27	(x 3.0)	x	x	x	x	x	-	x
M	30	(x 3.5)	x	x	x	x	x	-	x
M	33	(x 3.5)	x	x	x	x	x	-	x
M	36	(x 4.0)	x	x	x	x	x	-	x
M	39	(x 4.0)	x	x	x	x	x	-	x
M	42	(x 4.5)	x	x	x	x	x	-	x
M	45	(x 4.5)	x	x	x	x	x	-	x
M	48	(x 5.0)	x	x	x	x	x	-	x
M	52	(x 5.0)	x	x	x	x	x	-	x
M	56	(x 5.5)	x	x	x	x	x	-	x
M	60	(x 5.5)	x	x	x	x	x	-	x
M	64	(x 6.0)	x	x	x	x	x	-	x
M	68	(x 6.0)	x	x	x	x	x	-	x



Limit thread plug gauge
from 1 mm - 40 mm nominal diameter



GO thread plug gauge
above 40 mm - 200 mm nominal



NO GO thread plug gauge
above 40 mm - 200 mm nominal diameter



GO thread ring gauge



NO GO thread ring gauge



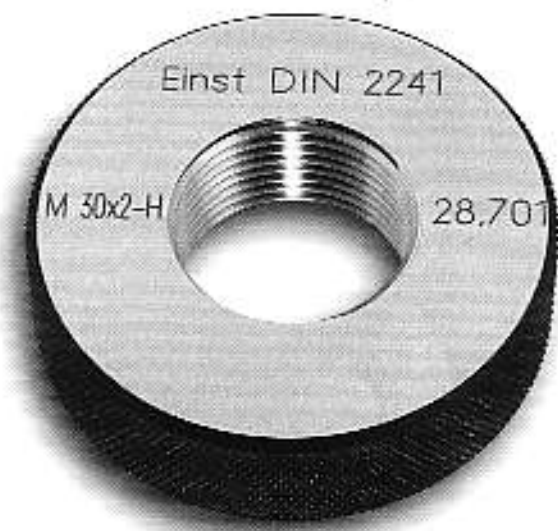
Thread gauges
for
metric thread,
fine
No. 00C

pitch 6 mm

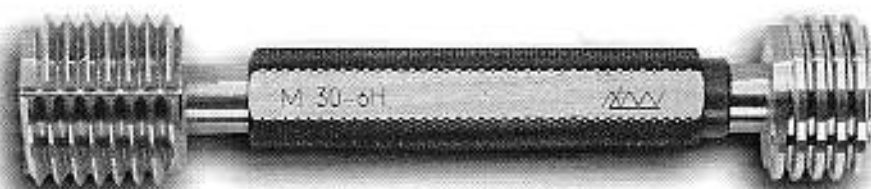
Nominal thread Ø			Limit thread plug gauge	GO thread plug gauge	NO GO thread plug gauge	GO or NO GO thread ring gauge	Limit thread setting gauge	Limit thread caliper gauge	Limit plug gauge for minor diameter
M 70	x 6	x 6	x	x	x	x	x	x	x
M 72	x 6	x 6	-	x	x	x	x	x	x
M 76	x 6	x 6	-	x	x	x	x	x	x
M 80	x 6	x 6	-	x	x	x	x	x	x
M 85	x 6	x 6	-	x	x	x	x	x	x
M 90	x 6	x 6	-	x	x	x	x	x	x
M 95	x 6	x 6	-	x	x	x	x	x	x
M 100	x 6	x 6	-	x	x	x	x	x	x
M 105	x 6	x 6	-	x	x	x	x	x	x
M 110	x 6	x 6	-	x	x	x	x	x	x
M 115	x 6	x 6	-	x	x	x	x	x	x
M 120	x 6	x 6	-	x	x	x	x	x	x
M 125	x 6	x 6	-	x	x	x	x	x	x
M 130	x 6	x 6	-	x	x	x	x	x	x
M 135	x 6	x 6	-	x	x	x	x	x	x
M 140	x 6	x 6	-	x	x	x	x	x	x
M 145	x 6	x 6	-	x	x	x	x	x	x
M 150	x 6	x 6	-	x	x	x	x	x	x
M 155	x 6	x 6	-	x	x	x	x	x	x
M 160	x 6	x 6	-	x	x	x	x	x	x
M 165	x 6	x 6	-	x	x	x	x	x	x
M 170	x 6	x 6	-	x	x	x	x	x	x
M 175	x 6	x 6	-	x	x	x	x	x	x
M 180	x 6	x 6	-	x	x	x	x	x	x
M 185	x 6	x 6	-	x	x	x	x	x	x
M 190	x 6	x 6	-	x	x	x	x	x	x
M 195	x 6	x 6	-	x	x	x	x	x	x
M 200	x 6	x 6	-	x	x	x	x	x	x
M 205	x 6	x 6	-	x	x	x	-	-	x
M 210	x 6	x 6	-	x	x	x	-	-	x
M 215	x 6	x 6	-	x	x	x	-	-	x
M 220	x 6	x 6	-	x	x	x	-	-	x
M 225	x 6	x 6	-	x	x	x	-	-	x
M 230	x 6	x 6	-	x	x	x	-	-	x
M 235	x 6	x 6	-	x	x	x	-	-	x
M 240	x 6	x 6	-	x	x	x	-	-	x
M 245	x 6	x 6	-	x	x	x	-	-	x
M 250	x 6	x 6	-	x	x	x	-	-	x



NO GO thread ring gauge
with dirt groove



Thread setting ring according
to DIN 2241



Limit thread plug gauge
with piloting collar on the NO GO part
and dirt groove on the GO part

Thread gauges

No.
010

for trapezoidal thread to DIN 103 (ISO)

The manufactured range includes:

- ◆ Limit thread plug gauges
- ◆ GO thread plug gauges
- ◆ NO GO thread plug gauges
- ◆ GO thread ring gauges
- ◆ NO GO thread ring gauges
- ◆ Limit thread setting gauges
- ◆ Limit thread caliper gauges up to pitch 6

Recommended tolerance zones for effective diameters

Tolerance class	Screw-in group N	
	internal thread	external thread
medium	7 H	7 e
coarse	8 H	8 e

Sizes in the standard range

Tr 8 x 1,5	Tr 32 x 6
Tr 9 x 2	Tr 34 x 6
Tr 10 x 2	Tr 36 x 6
Tr 11 x 2	Tr 38 x 7
Tr 12 x 3	Tr 40 x 7
Tr 14 x 3	Tr 42 x 7
Tr 16 x 4	Tr 44 x 7
Tr 18 x 4	Tr 46 x 8
Tr 20 x 4	Tr 48 x 8
Tr 22 x 5	Tr 50 x 8
Tr 24 x 5	Tr 52 x 8
Tr 26 x 5	Tr 55 x 9
Tr 28 x 5	Tr 60 x 9
Tr 30 x 6	



No.
040

for cylindrical pipe thread for not-self-sealing thread connections to DIN-ISO 228 Part 1

The manufactured range includes:

- ◆ Limit thread plug gauges
- ◆ GO thread plug gauges
- ◆ NO GO thread plug gauges
- ◆ GO thread ring gauges
- ◆ NO GO thread ring gauges
- ◆ Limit thread setting gauges
- ◆ Limit thread caliper gauges

Descriptions

e.g. for nominal size 1 1/2"

internal thread	external thread	
	class A	class B
G 1 1/2	G 1 1/2 A	G 1 1/2 B

Sizes in the standard range

G 1/8"	G 2"
G 1/4"	G 2 1/4"
G 3/8"	G 2 1/2"
G 1/2"	G 2 3/4"
G 5/8"	G 3"
G 3/4"	G 3 1/2"
G 7/8"	G 4"
G 1"	G 4 1/2"
G 1 1/8"	G 5"
G 1 1/4"	G 5 1/2"
G 1 1/2"	G 6"
G 1 3/4"	G 6 1/2"

NO GO thread ring gauge for trapezoidal thread

No.
050

for British standard Withworth thread BSW to BS 84

The manufactured range includes:

- ◆ The manufactured range includes:
- ◆ Limit thread plug gauges
- ◆ GO thread plug gauges
- ◆ NO GO thread plug gauges
- ◆ GO thread ring gauges
- ◆ NO GO thread ring gauges
- ◆ Limit thread setting gauges
- ◆ Limit thread caliper gauges

As also for metric thread gauges for the manufacture a sophisticated special steel is used. The gauges are featured by high wear resistance, careful grinding and precise surface.

Sizes in the standard range

1/8"	2"
3/16"	2 1/4"
1/4"	2 1/2"
5/16"	2 3/4"
3/8"	3"
1/2"	3 1/4"
5/8"	3 1/2"
3/4"	3 3/4"
7/8"	4"
1"	4 1/4"
1 1/8"	4 1/2"
1 1/4"	4 3/4"
1 1/2"	5"
1 3/4"	5 1/4"
2"	5 1/2"
2 1/4"	5 3/4"
2 1/2"	6"

Limit thread plug gauge for trapezoidal thread



Thread gauges

No.
051for British Standard
BSF to BS 84

The manufactured range includes:

- ◆ Limit thread plug gauges
- ◆ GO thread plug gauges
- ◆ NO GO thread plug gauges
- ◆ GO thread ring gauges
- ◆ NO GO thread ring gauges
- ◆ Limit thread setting gauges
- ◆ Limit thread caliper gauges

Sizes in the standard range	
7/16 x 32	1 1/4 x 8
7/32 x 28	1 1/8 x 8
1/4 x 28	1 1/2 x 8
9/32 x 26	1 7/16 x 8
5/16 x 22	1 3/4 x 7
3/8 x 20	2 x 7
7/16 x 18	2 1/4 x 6
1/2 x 16	2 1/2 x 6
7/16 x 18	2 3/4 x 6
5/8 x 14	3 x 5
7/16 x 14	3 1/4 x 5
1/2 x 12	3 1/2 x 4 1/2
3/4 x 11	3 3/4 x 4 1/2
1 x 10	4 x 4 1/2
1 1/8 x 9	4 1/4 x 4

No.
030for American unified
inch screw thread,
coarse
UNC to ANSI B 1.1
- 1982

The manufactured range includes:

- ◆ Limit thread plug gauges
- ◆ GO thread plug gauges
- ◆ NO GO thread plug gauges
- ◆ GO thread ring gauges
- ◆ NO GO thread ring gauges
- ◆ Limit thread setting gauges
- ◆ Limit thread caliper gauges

Sizes in the standard range	
No. 1 - 64	7/8 - 8
No. 2 - 56	1 - 8
No. 3 - 48	1 1/8 - 7
No. 4 - 40	1 1/4 - 7
No. 5 - 40	1 3/8 - 8
No. 6 - 32	1 1/2 - 6
No. 8 - 32	1 3/4 - 5
No. 10 - 24	2 - 4 1/2
No. 12 - 24	2 1/4 - 4 1/2
1/4 - 20	2 1/2 - 4
7/16 - 18	2 3/4 - 4
7/16 - 14	3 - 4
1/2 - 13	3 1/4 - 4
7/16 - 12	3 1/2 - 4
3/8 - 11	3 3/4 - 4
3/4 - 10	4 - 4

No.
031for American unified
inch screw thread,
fine
UNF to ANSI B 1.1
- 1982The same volume as for UNC thread
gauges in the manufactured range.

Sizes in the standard range	
No. 0 - 80	7/16 - 20
No. 1 - 72	1/2 - 20
No. 2 - 64	7/16 - 18
No. 3 - 56	3/8 - 18
No. 4 - 48	3/4 - 16
No. 5 - 44	7/8 - 14
No. 6 - 40	1 - 12
No. 8 - 36	1 1/8 - 12
No. 10 - 32	1 1/4 - 12
No. 12 - 28	1 3/8 - 12
1/4 - 28	1 1/2 - 12
7/16 - 24	3 1/4 - 4
3/8 - 24	4 - 4



Thread gauges

No.
032

for American unified
inch screw thread,
extrafine
UNEF to ANSI B 1.1
- 1982

The same volume as for UNF thread
gauges in the manufactured range.

Sizes in the standard range

No.12 - 32	1 - 20
1/4 - 32	1 1/16 - 20
3/16 - 32	1 1/8 - 18
1/2 - 32	1 1/4 - 18
5/16 - 28	1 3/8 - 18
3/4 - 20	1 1/2 - 18
7/16 - 24	1 5/8 - 18
1/2 - 24	1 3/4 - 18
9/16 - 24	1 7/8 - 18
3/4 - 20	1 1/2 - 18
13/16 - 20	1 7/8 - 18
1/2 - 20	1 3/4 - 18
11/16 - 20	1 7/8 - 18

No.
060

for steel conduit
thread to DIN 40430

The manufactured range includes:

- ◆ Limit thread plug gauges with plain NO GO plug gauge
- ◆ GO thread ring gauges
- ◆ NO GO thread ring gauges, plain

Sizes in the standard range

Pg 7	Pg 21
Pg 9	Pg 20
Pg 11	Pg 36
Pg 13,5	Pg 42
Pg 16	Pg 48

No.
067

for Edison thread
to DIN 40400

The manufactured range includes:

- ◆ Limit thread plug gauges with plain
- ◆ NO GO plug gauge
- ◆ GO thread ring gauges
- ◆ NO GO thread ring gauges, plain

Sizes in the standard range

E 14	L 27
E 16	E 33
E 10	



Thread gauges

No.
070for Withworth pipe
thread to DIN 2999
(August 1973)

The manufactured range includes:

- ◆ Limit thread plug gauge (tapered)
- ◆ Limit thread ring gauge (cylindrical)

Sizes in the standard range

$\frac{1}{16}$ "	1 $\frac{1}{2}$ "
$\frac{1}{8}$ "	2 "
$\frac{1}{4}$ "	2 $\frac{1}{2}$ "
$\frac{3}{8}$ "	3 "
$\frac{1}{2}$ "	4 "
$\frac{3}{4}$ "	5 "
1 "	6 "
1 $\frac{1}{4}$ "	

No.
071for American taper
pipe thread NPT
to ANSI/ASME
B 1.20.1

The manufactured range includes:

- ◆ Limit thread plug gauges
- ◆ Limit thread ring gauges

Sizes in the standard range

$\frac{1}{16}$ -27 - NPT	2 - 11 $\frac{1}{2}$ -NPT
$\frac{1}{8}$ -27 - NPT	2 $\frac{1}{2}$ - 8 - NPT
$\frac{1}{4}$ -18 - NPT	3 - 8 - NPT
$\frac{3}{8}$ -18 - NPT	3 $\frac{1}{2}$ - 8 - NPT
$\frac{1}{2}$ -14 - NPT	4 - 8 - NPT
$\frac{3}{4}$ -14 - NPT	5 - 8 - NPT
1 - 11 $\frac{1}{2}$ -NPT	6 - 8 - NPT
1 $\frac{1}{4}$ - 11 $\frac{1}{2}$ -NPT	8 - 8 - NPT
1 $\frac{1}{2}$ - 11 $\frac{1}{2}$ -NPT	

No.
072for American
tapes pipe thread,
fine NPTF
to ANSI/ASME
B 1.20.5

The manufactured range includes:

- ◆ Limit thread plug gauges
- ◆ Limit thread ring gauges with GO and NO GO step (limit gauge)

3 steps, 4 steps and 6 steps gauges
on request

Sizes in the standard range

$\frac{1}{16}$ -27 - NPTF	1 - 11 $\frac{1}{2}$ -NPTF
$\frac{1}{8}$ -27 - NPTF	1 $\frac{1}{4}$ -11 $\frac{1}{2}$ -NPTF
$\frac{1}{4}$ -18 - NPTF	1 $\frac{1}{2}$ - 11 $\frac{1}{2}$ -NPTF
$\frac{3}{8}$ -18 - NPTF	2 - 11 $\frac{1}{2}$ -NPTF
$\frac{1}{2}$ -14 - NPTF	2 $\frac{1}{2}$ - 8 - NPTF
$\frac{3}{4}$ -14 - NPTF	3 - 8 - NPTF

Other thread sizes on request

Thread gauges
according to DIN 2999