

ISO 9001:2008 by L.R.  
PED DIR. 97/23/EC by L.R.  
ATEX DIR. 94/9/EC by B.V.  
FIRE SAFE EXECUTION by L.R.  
ISO 15848 by TÜV  
ANTISTATIC DEVICE by L.R.  
FIRE SAFE TESTED ISO 10497 by L.R.

TYPE  
**FS2**  
PN 40 ÷ 250

NORME E DIRETTIVE APPLICATE DISPONIBILI AL SEGUENTE LINK:  
STANDARD AND DIRECTIVE APPLIED AVAILABLE AT FOLLOWING LINK:  
[http://www.adlerspa.com/pdf/NORME\\_ADLER.pdf](http://www.adlerspa.com/pdf/NORME_ADLER.pdf)

## VALVOLE A SFERA "2 PEZZI" PASSAGGIO TOTALE GAS ISO 7 - ANSI B1.20.1 NPT

ISO nbr° LRC 0160281 QMS issued by L.R.Q.A. PED nbr° COV 0212112/01 issued by L.R.V.  
ATEX nbr° 40.2003.4392 issued by B.V.

On request  
S.I.L. 3  
According to IEC 61508



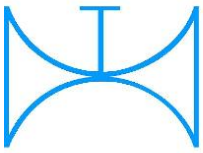
On request  
FIRE SAFE  
According to ISO 10497  
"ISO-FT"

FULL BORE ACCORDING  
TO ISO 14313

CONSTRUCTION ACCORDING TO:  
BS EN 12516-2 - DIN 3202 M3  
ISO 14313

**BALL VALVES "2 PIECE" FULL BORE  
ROBINETS A BOISSEAU SPHERIQUE  
"2 PIECES" PASSAGE INTEGRAL  
KUGELHÄHNE "2 TEILIG"  
VOLLER DURCHGANG**

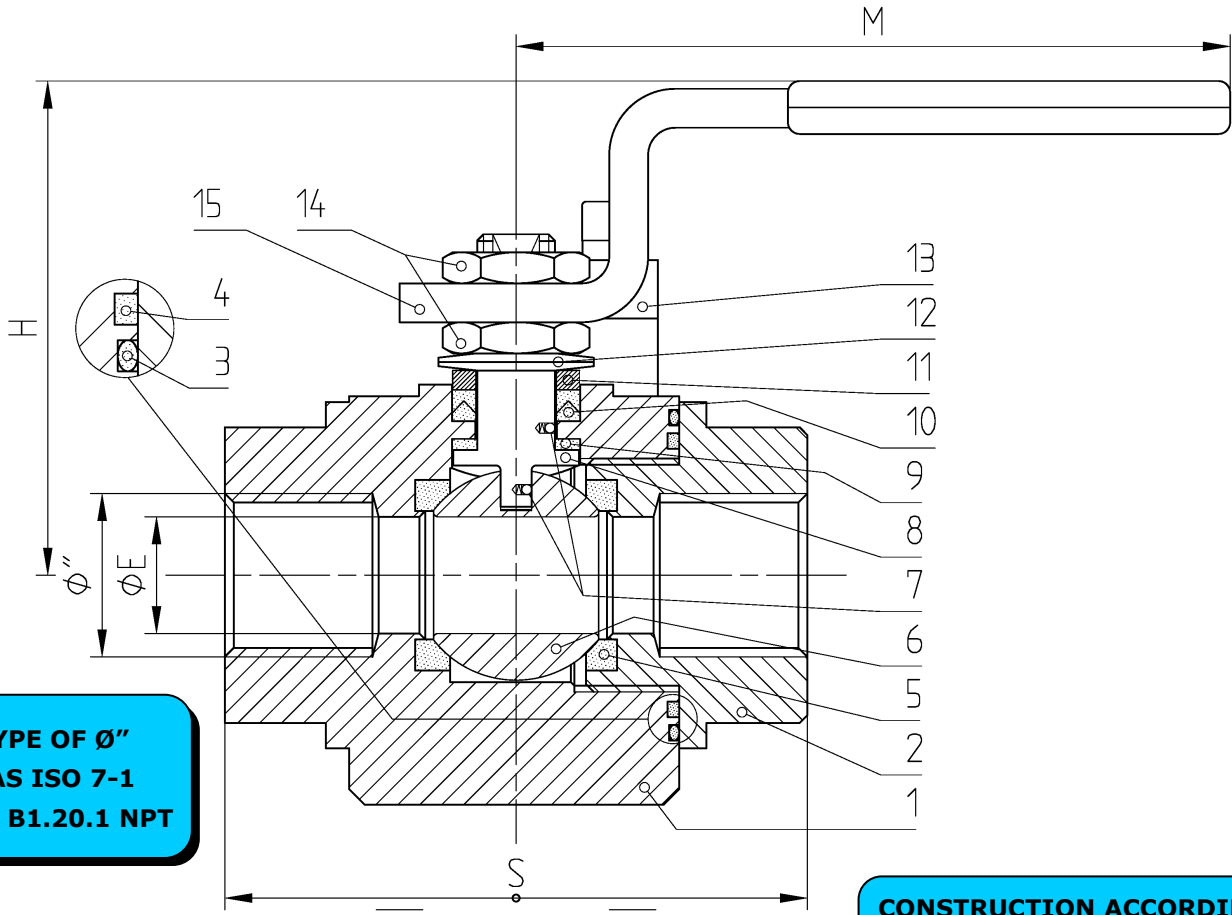
WEB SITE: [WWW.ADLERSPA.COM](http://WWW.ADLERSPA.COM)



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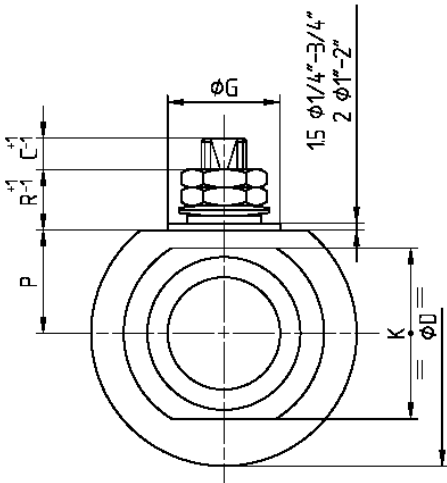
TYPE  
**FS2**  
 PN 40 ÷ 250

VALVOLA A SFERA "2 PEZZI" PASSAGGIO TOTALE  
 BALL VALVES "2 PIECE" FULL BORE  
 ROBINETS A BOISSEAU SPHERIQUE "2 PIECES" PASSAGE INTEGRAL  
 KUGELHÄHNE "2 TEILIG" VOLLER DURCHGANG



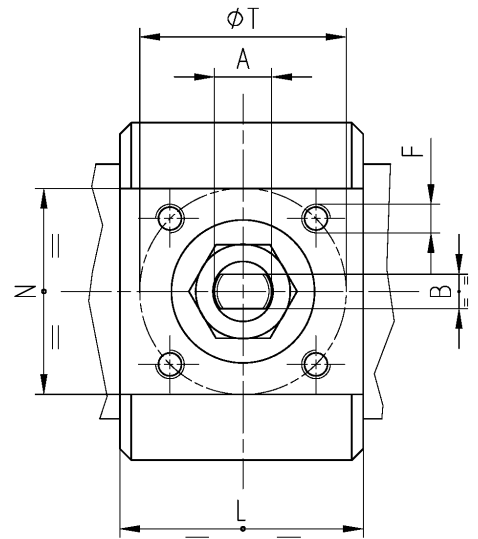
TYPE OF Ø"  
 GAS ISO 7-1  
 ANSI B1.20.1 NPT

CONSTRUCTION ACCORDING TO:  
 BS EN 12516-2 - DIN 3202 M3  
 ISO 14313



- ACCOPPIAMENTO VALVOLA ATTUATORE
- CONNECTION VALVE ACTUATOR
- ACCOUPLEMENT ROBINET-ACTIONNEUR
- ZUSAMMENBAU KUGELHAHN ANTRIEB

**ISO-5211**



N.	DESCRIZIONE DESCRIPTION BESCHREIBUNG	MATERIALI MATERIALS MATERIAUX WERKSTOFFE
1	CORPO BODY CORPS KÖRPER	ASTM A105 ASTM A479 304/304L ASTM A479 316/316L
2	GHIERA INSERT EMBOUT GEWINDEDRUCKRING	ASTM A105 ASTM A479 304/304L ASTM A479 316/316L
3*	O'RING	FKM (VITON)
4*	ANELLO SEAL ANNEAU DICHTUNGSRING	P.T.F.E.
5*	SEDE RINFORZATA SEAT REINFORCED SIEGE RENFORCE SITZRING VERSTÄRKT	P.T.F.E. / 15% FIBERGLASS P.T.F.E. / STAINLESS STEEL Δ
6	SFERA BALL BOULE KUGEL	ASTM A479 304/304L ASTM A351 CF8  ASTM A479 316/316L ASTM A351 CF8M
7	DISPOSITIVO ANTISTATICO ANTISTATIC DEVICE CONTACT ANTISTATIQUE ANTISTATIK VORRICHTUNG	ASTM A479 316/316L
8	STELO STEM TIGE SPINDEL	ASTM A479 304/304L  ASTM A479 316/316L

N.	DESCRIZIONE DESCRIPTION BESCHREIBUNG	MATERIALI MATERIALS MATERIAUX WERKSTOFFE
9*	BUSSOLA STEM SEAL JOINT TIGE UNTERE SPINDELABDICHTUNG	P.T.F.E.
10*	PACCO A "V" CHEVRON RINGS JOINT A "V" 3 FACHE DACHMANSCHETTE	P.T.F.E. / GRAFITE P.T.F.E. / GRAPHITE P.T.F.E. / GRAPHITE P.T.F.E. / GRAPHIT
11	PREMIBUSSOLA PRESSING BUSH PRESSE RONDELLE STOPFBUCHSDRUCKRING	ASTM A479 304
12	MOLLE A TAZZA SPRING WASHERS RONDELLES BELLEVILLE TELLERFEDERN	C72/50Cr V <sub>4</sub>  X5CrNi17.7 or X12CrNi17.7  ZINCATO - GALVANIZED - ZINGUE - VERZINKT  ON REQUEST
13	VITE DI FERMO E FERMO PIN AND STOP PIN PLOT ET PLOT D'ARRET ANSCHLAGBOLZEN	UNI 3740 8.8  UNI 3951 A2-70  ZINCATO - GALVANIZED - ZINGUE - VERZINKT  ON REQUEST
14	DADO - CONTRODADO NUT - LOCK NUT ECROU - CONTRE-ECROU MUTTER - KONTERMUTTER	UNI 3740 - 6S  ASTM A479 304  ZINCATO - GALVANIZED ZINGUE - VERZINKT  ON REQUEST
15	LEVA WRENCH LEVIER HANDHEBEL	AISI 1010  ASTM A479 304  ZINCATO - GALVANIZED ZINGUE - VERZINKT  ON REQUEST
16		

\* RICAMBI CONSIGLIATI - RECOMMENDED SPARE PARTS - PIECES DE RECHANGE CONSEILLEES - ERSATZTEIL EMPFEHLUNG

Δ OPTIONAL

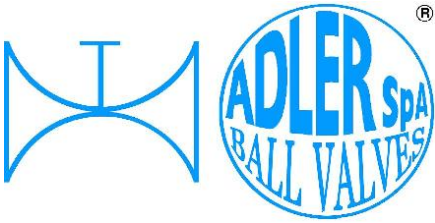
## DIMENSIONI - DIMENSION - DIMENSIONS - ABMESSUNGEN

Ø	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"
<b>A</b>	8	8	10	10	12	12	16	16	22	22			
<b>B</b>	5	5	6	6	8	8	10	10	14	14			
<b>C</b>	6	6	7	7	9	9	11	11	16	16			
<b>D</b>	49,5	49,5	59	64	74	79,5	99,5	118,5	169	186	PN 40 ÷ 100 Class 800		
<b>E</b>	10	10	15	19	25	30	38	51	64	76			
<b>F</b>	M5	M5	M5	M5	M5	M5	M6	M6	M8	M8			
<b>ISO</b>	F03	F03	F03	F03	F03	F03	F05	F05	F07	F07			
<b>G</b>	25	25	25	25	25	25	35	35	55	55	PN 250 ÷ 160 Class 3000		
<b>H</b>	46	46	63	65	76	80	98	108	140	148			
<b>K</b>	30	30	38	42	50	55	70	85	120	130			
<b>L</b>	33	33	42	46	55	58	71	79	129	129			
<b>M</b>	120	120	145	145	185	185	280	280	370	370			
<b>N</b>	35	35	37	38	37	35	46	50	67	71			
<b>P</b>	17,7	17,7	23	25,3	32	36	43,5	54	77.5	86	A105 STANDARD ZINCATO GALVANIZED ZINGUE VERZINKT		
<b>R</b>	12	12	14	14	16	16	19	19	23.5	23.5			
<b>S</b>	50	60	75	80	90	110	120	140	185	205			
<b>T</b>	36	36	36	36	36	36	50	50	70	70			
<b>PN</b>	100	100	63	63	40	40	40	40	40	40			
<b>PN</b>	250	250	250	250	250	160	160	160	160	160			
<b>Kg</b>	0.6	0.65	1.2	1.4	2.2	3.2	5.2	7.8	20	26			

- DATI E CARATTERISTICHE SOGGETTI A VARIAZIONI SENZA PREAVVISO
- SPECIFICATIONS SUBJECT TO MODIFICATION WITHOUT PRIOR NOTICE
- TOUS DROITS DE MODIFICATION RESERVES
- KONSTRUKTIONSÄNDERUNGEN VORBEHALTEN



ADLER SpA - BALL VALVES  
20010 S. STEFANO TICINO (MI) ITALY V.le BORLETTI, 14 Tel. +39/02974842.11 FAX +39/0297271698  
E-mail: [adler@adlerspa.com](mailto:adler@adlerspa.com) <http://www.adlerspa.com>



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**FS2**  
 PN 40 ÷ 250

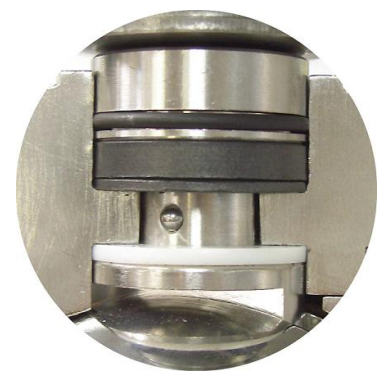
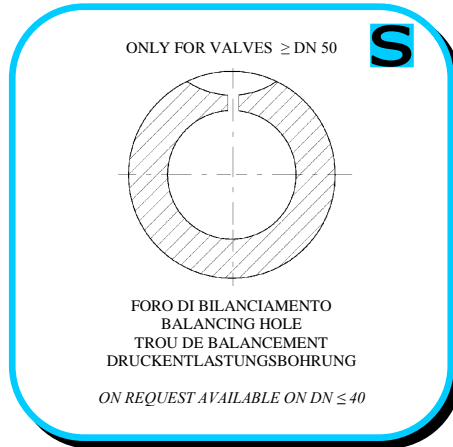
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 BALL VALVES "2 PIECE" FULL BORE

ROBINETS A BOISSEAU SPHERIQUE "2 PIECES" PASSAGE INTEGRAL  
 KUGELHÄHNE "2 TEILIG" VOLLER DURCHGANG

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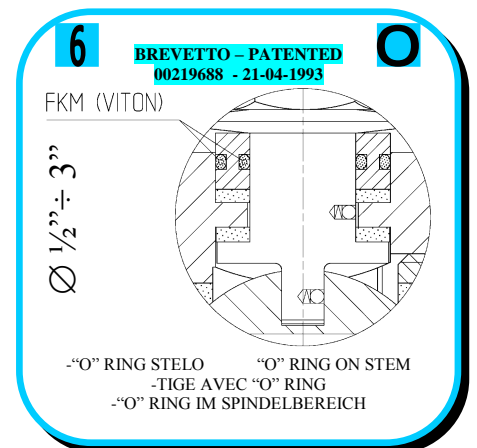
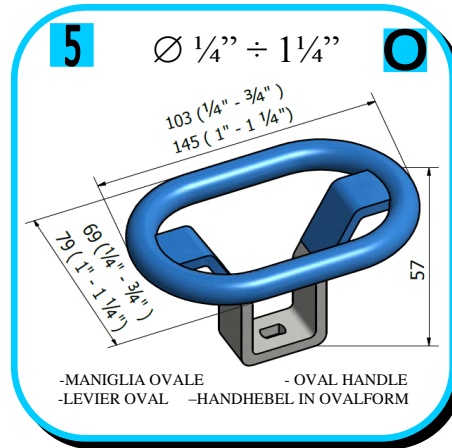
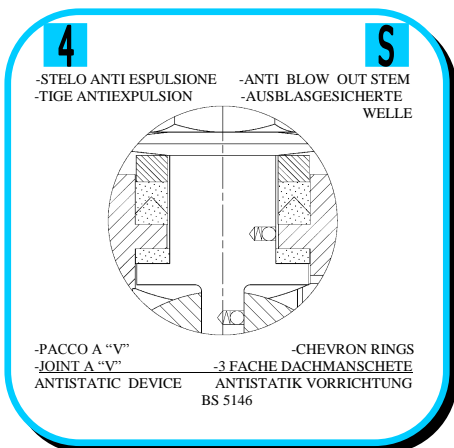
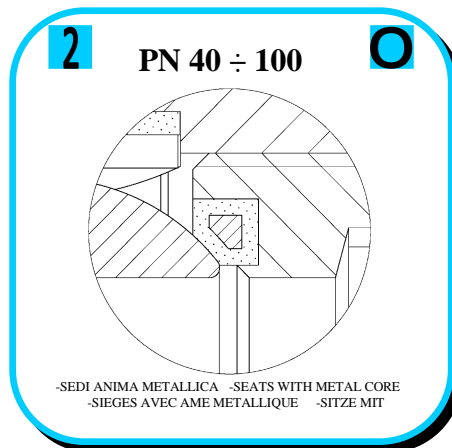
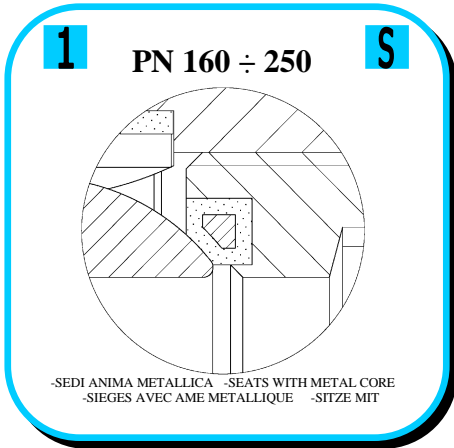
EXECUTION 4-12

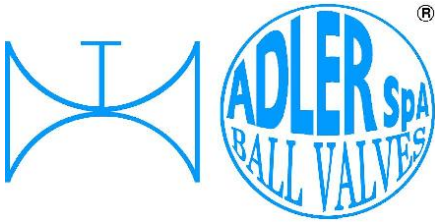


EXECUTION 6-16

**S** STANDARD

**O** OPTIONAL





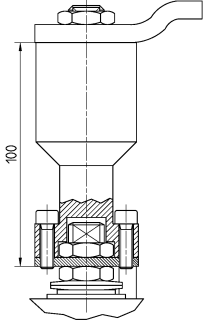
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 ISO 15848 by TÜV  
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 FIRE SAFE TESTED ISO 10497 by L.R.**

**TYPE  
 FS2  
 PN 40 ÷ 250**

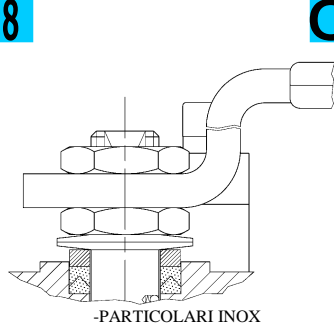
**VALVOLA A SFERA "2 PEZZI" PASSAGGIO TOTALE  
 BALL VALVES "2 PIECE" FULL BORE**

**ROBINETS A BOISSEAU SPHERIQUE "2 PIECES" PASSAGE INTEGRAL  
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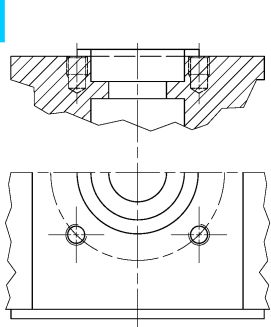
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**7**  **O**

-PROLUNGA STELO -STEM EXTENSION  
 -TIGE PROLONGEE -SPINDELVERLÄNGERUNG

**8**  **O**

-PARTICOLARI INOX -STAINLESS STEEL DETAILS  
 -ACCESSOIRES EN INOX -EDELSTAHLTEILE

**9**  **S**

-ATTACCO "ISO" -"ISO" CONNECTIONS  
 -SYSTEM "ISO" -ANSCHLUSS "ISO"

**ADLER**

UNA GAMMA COMPLETA  
 PRIVILEGIANDO LA QUALITA'

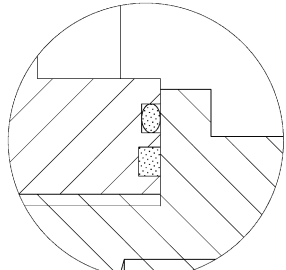
A COMPLETE RANGE PRIVILEGING  
 THE QUALITY



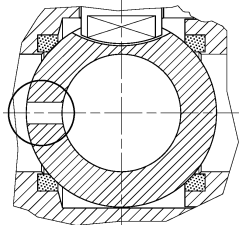
**12**  **O**

**FIRE SAFE  
 ISO 10497 "ISO-FT"  
 (BS 6755 / API 607)**



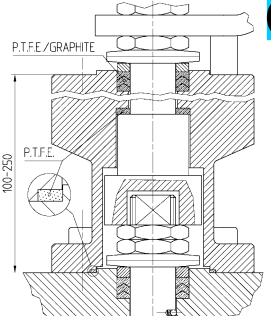
**13**  **S**

-DOPPIA TENUTA -DOUBLE SEALS  
 -DOUBLE ETANCHEITE -DOPPELTE ABDICHTUNG

**14** **VEDERE / SEE ANSI B16.34**  **O**

FLUSSO  
 FLOW

-FORO DI SCARICO NELLA SFERA -OVERPRESSURE HOLE INTO BALL  
 -TROU DECOMPRESSION DANS LA BOULE  
 -ENTLASTUNGSBOHRUNG IN DER KUGEL  
**VALVOLA MONO DIREZIONALE  
 MONO-DIRECTIONAL VALVE**

**15**  **O**

P.T.F.E./GRAPHITE  
 P.T.F.E.  
 100-250

-SERVIZIO CRIOGENICO - CRYOGENIC SERVICE  
 -SERVICE CRYOGÉNIQUE  
 -TIEFTEMPERATUR SERVICE

**PED CERTIFICATION**



**ADLER**

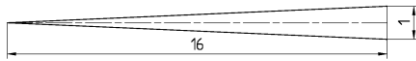
UNA GAMMA COMPLETA  
 PRIVILEGIANDO LA QUALITA'

A COMPLETE RANGE PRIVILEGING  
 THE QUALITY

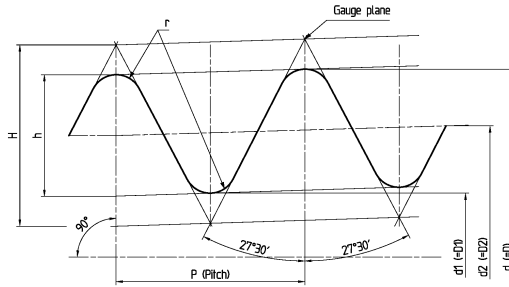




**IN ACCORDANCE TO**  
**ISO 7-1 – 1994**

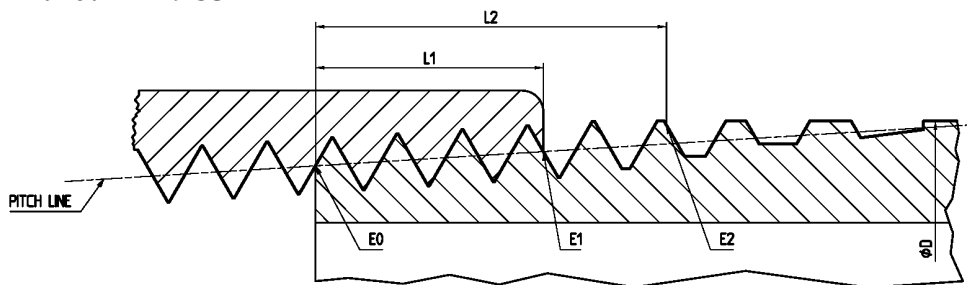


H= 0.960 237 P  
h= 0.640 327 P  
r= 0.137 278 P



1	2	3	4	5			6				7		8			9			15	16	17	18	19	20
				Diameters of gauges plane			Gauges length (external threads)				Tolerance on position of gauge plan on internal thread		Length of useful external thread not less than			Fitting allowance		Diameter tolerance on parallel internal threads						
				Major	Pitch	Minor	Nominal	Tolerance ±t <sub>1</sub> /2	Max.	Min.	Tolerance ±t <sub>1</sub> /2	Turns of thread	For nominal gauge length	For maximum gauge length	For minimum gauge length	Turns of thread								
d	d <sub>2</sub>	d <sub>1</sub>		2)				2)					2)											
1/4	19	1,337	0,856	13,15	12,30	11,44	6	1,3	1	7,3	4,7	1,7	1 1/4	9,7	11	8,4	3,7	2 3/4	±0,104					
3/8	19	1,337	0,856	16,66	15,80	14,95	6,4	1,3	1	7,7	5,1	1,7	1 1/4	10,1	11,4	8,8	3,7	2 3/4	±0,104					
1/2	14	1,814	1,162	20,95	19,79	18,63	8,2	1,8	1	10	6,4	2,3	1 1/4	13,2	15	11,4	5	2 3/4	±0,142					
3/4	14	1,814	1,162	26,44	25,27	24,11	9,5	1,8	1	11,3	7,7	2,3	1 1/4	14,5	16,3	12,7	5	2 3/4	±0,142					
1	11	2,309	1,479	33,24	31,77	30,29	10,4	2,3	1	12,7	8,1	2,9	1 1/4	16,8	19,1	14,5	6,4	2 3/4	±0,180					
1 1/4	11	2,309	1,479	41,91	40,43	38,95	12,7	2,3	1	15	10,4	2,9	1 1/4	19,1	21,4	16,8	6,4	2 3/4	±0,180					
1 1/2	11	2,309	1,479	47,80	46,32	44,84	12,7	2,3	1	15	10,4	2,9	1 1/4	19,1	21,4	16,8	6,4	2 3/4	±0,180					
2	11	2,309	1,479	59,61	58,13	56,65	15,9	2,3	1	18,2	13,6	2,9	1 1/4	23,4	25,7	21,1	7,5	3 1/4	±0,180					
2 1/2	11	2,309	1,479	75,18	73,70	72,22	17,9	3,5	1 1/2	21	14	3,5	1 1/2	26,7	30,2	23,2	9,2	4	±0,216					
3	11	2,309	1,479	87,88	86,40	84,92	20,6	3,5	1 1/2	24,1	17,1	3,5	1 1/2	29,8	33,3	26,3	9,2	4	±0,216					

**IN ACCORDANCE TO**  
**ANSI B1.20.1 – 1983**



1	2	3	4	5	6			7			8			9			10			11		
					Nominal Pipe Size	O.D. of Pipe (D)	Threads/inch (n)	Pitch of threads (P)	Pitch diam. at beginning of external thread (E <sub>0</sub> )	Handtight engagement		Diam. <sup>3</sup> (E <sub>1</sub> )	Effective thread, external		Diam. <sup>5</sup> (E <sub>2</sub> )							
										Length <sup>2</sup> (L <sub>1</sub> )	Diam. <sup>3</sup> (E <sub>1</sub> )		Length <sup>4</sup> (L <sub>2</sub> )	Diam. <sup>5</sup> (E <sub>2</sub> )								
inch	inch	inch	inch	inch	inch	threads	inch	threads	inch	threads	inch	threads	inch	threads	inch	threads	inch	threads	inch	threads		
1/4	0,540	18	0,05556	0,47739	0,2278	4,1	0,49163	0,4018	7,23	0,50250												
3/8	0,675	18	0,05556	0,61201	0,240	4,32	0,32701	0,4078	7,34	0,63750												
1/2	0,840	14	0,07143	0,75843	0,320	4,48	0,77843	0,5337	7,47	0,79179												
3/4	1,050	14	0,07143	0,96768	0,339	4,75	0,98887	0,5457	7,64	1,00179												
1	1,315	11,5	0,0896	1,21363	0,400	4,6	1,23863	0,6828	7,85	1,25630												
1 1/4	1,660	11,5	0,0896	1,55713	0,420	4,83	1,58338	0,7068	8,13	1,60130												
1 1/2	1,900	11,5	0,0896	1,79609	0,420	4,83	1,82237	0,7235	8,32	1,84130												
2	2,375	11,5	0,0896	2,26902	0,436	5,01	2,29627	0,7565	8,70	2,31630												
2 1/2	2,875	8	0,125	2,71953	0,682	5,46	2,76216	1,1375	9,10	2,79062												
3	3,500	8	0,125	3,34062	,0766	6,13	3,38850	1,2000	9,60	3,41562												