

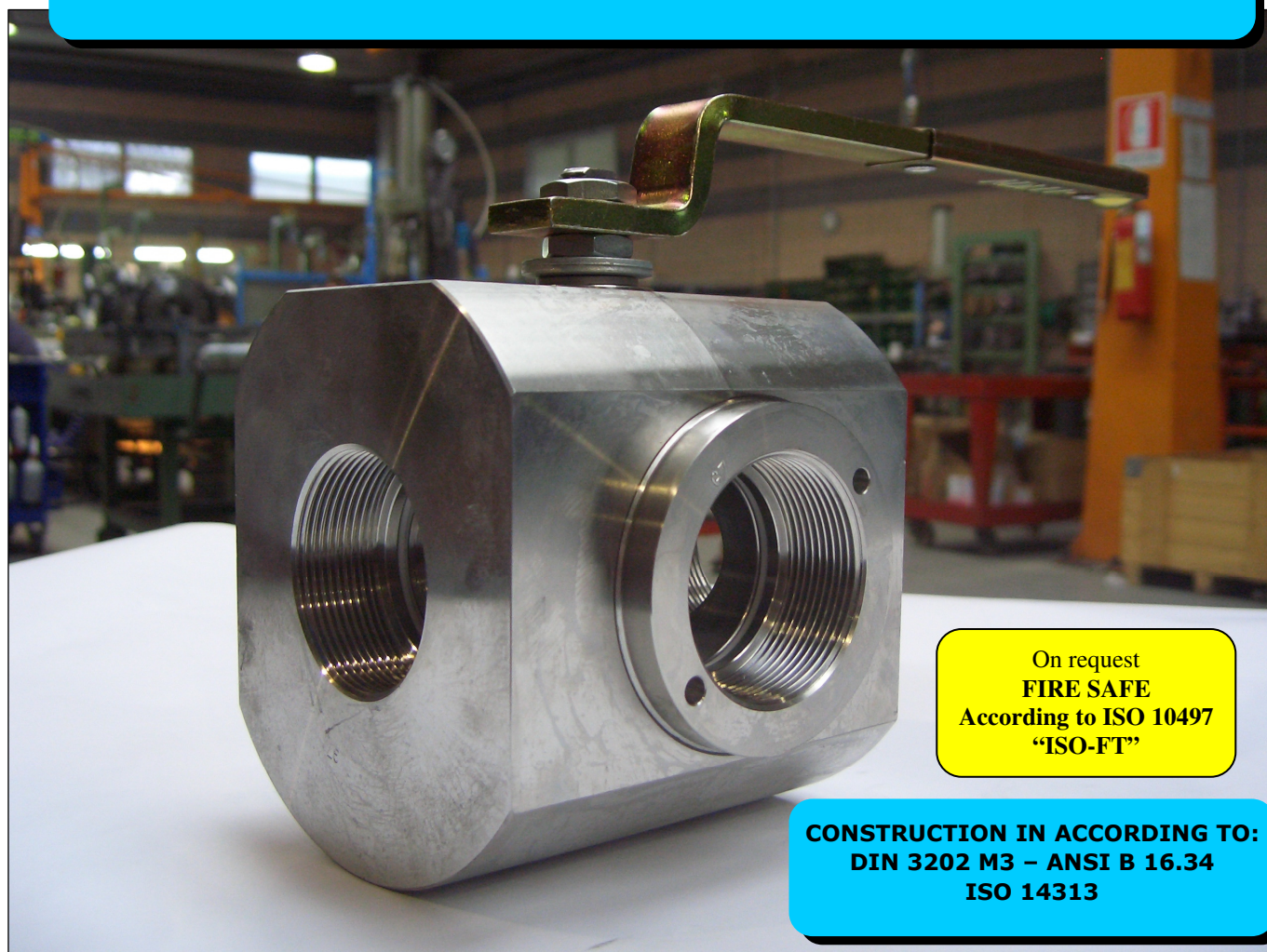


ISO 9001:2008 by L.R.  
PED DIR. 97/23/EC by L.R.  
ATEX DIR. 94/9/EC by B.V.  
FIRE SAFE EXECUTION by L.R.  
ISO 15848 by TÜV  
ANTISTATIC DEVICE by L.R.  
FIRE SAFE TESTED ISO 10497 by L.R.  
[WWW.ADLERSPA.COM](http://WWW.ADLERSPA.COM)

TYPE  
**FT6**  
PN 25 ÷ 63

**BALL VALVES "3 WAY" FULL BORE 90°  
ROBINETS A BOULE "3 VOIES"  
PASSAGE INTEGRAL 90°  
KUGELHÄHNE "3 WEGE"  
VOLLER DURCHGANG 90°**

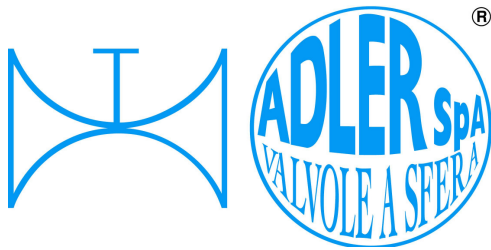
ISO nbr° LRC 0160281 QMS issued by L.R.Q.A. PED nbr° COV 0212112/01 issued by L.R.V.  
ATEX nbr° 40.2003.4392 issued by B.V. ISO 15848 nbr° I-148466/1-/2 issued by TÜV



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

**CONSTRUCTION IN ACCORDING TO:  
DIN 3202 M3 – ANSI B 16.34  
ISO 14313**

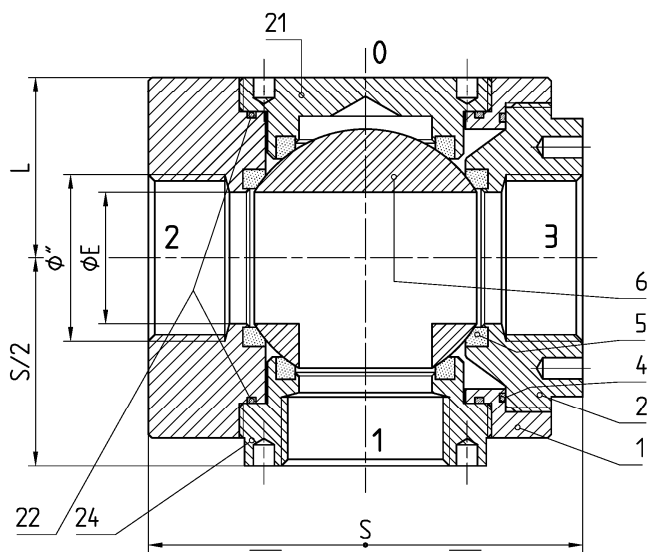
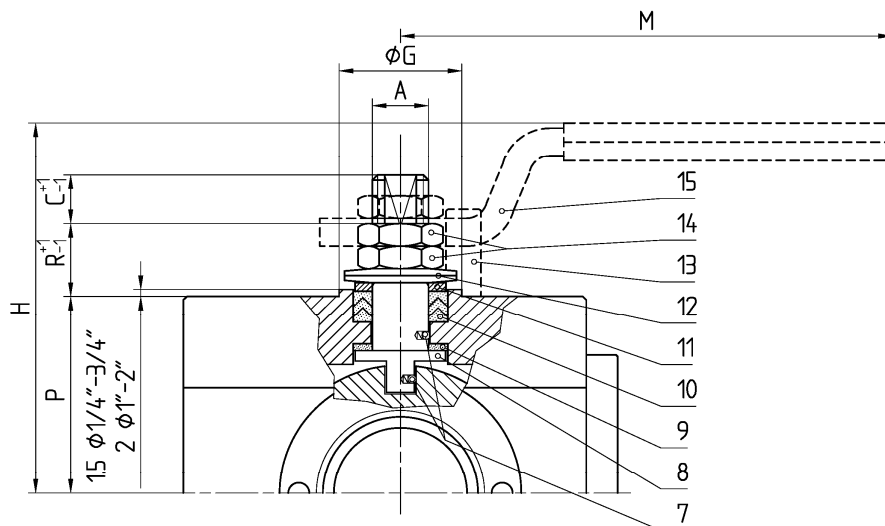




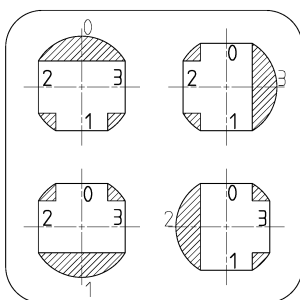
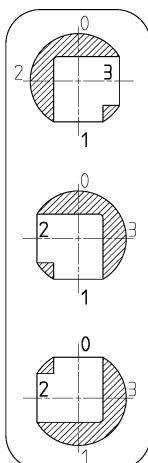
ISO 9001:2008 by L.R.  
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 ISO 15848 by TÜV  
 ANTISTATIC DEVICE by L.R.  
 FIRE SAFE TESTED ISO 10497 by L.R.

TYPE  
**FT6**  
 PN 25 ÷ 63

**VALVOLA A SFERA "3 VIE" PASSAGGIO TOTALE 90°**  
**BALL VALVES "3 WAY" FULL BORE 90°**  
**ROBINETS A BOULE "3 VOIES" PASSAGE INTEGRAL 90°**  
**KUGELHÄHNE "3 WEGE" VOLLER DURCHGANG 90°**



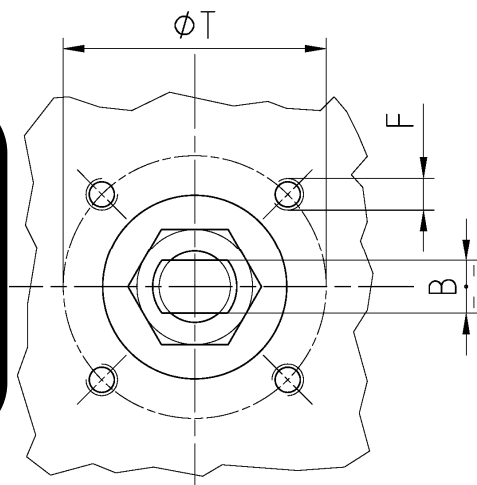
**CONSTRUCTION IN ACCORDING TO:**  
**DIN 3202 M3 - ANSI B16.34**  
**ISO 14313**



POSIZIONI OTTENIBILI  
 OBTAINABLE POSITIONS  
 POSITIONS OBTENIBLES  
 MÖGLICHE STELLUNGEN

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

**ISO-5211**



| N.  | DESCRIZIONE<br>DESCRIPTION<br>BESCHREIBUNG                                                     | MATERIALI<br>MATERIALS<br>MATERIAUX<br>WERKSTOFFE                                                                            |
|-----|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| 1   | CORPO<br>BODY<br>CORPS<br>KÖRPER                                                               | ASTM A105<br>ASTM A 182 F316- A479 S31600                                                                                    |
| 2   | GHIERA<br>INSERT<br>EMBOUT<br>GEWINDEDRUCKRING                                                 | ASTM A105<br>ASTM A 182 F316- A479 S31600                                                                                    |
| 4*  | ANELLO<br>SEAL<br>ANNEAU<br>DICHTUNGSRING                                                      | P.T.F.E.                                                                                                                     |
| 5*  | SEDE<br>SEAT<br>SIEGE<br>SITZRING                                                              | P.T.F.E.                                                                                                                     |
| 6   | SFERA<br>BALL<br>BOULE<br>KUGEL                                                                | ASTM A182 F304-A479 S30400<br>ASTM A351 CF8 $\geq \varnothing 1\frac{1}{2}"$<br>ASTM A182 F316-A479 S31600<br>ASTM A351 CF8M |
| 7   | DISPOSITIVO ANTISTATICO<br>ANTISTATIC DEVICE<br>CONTACT ANTISTATIQUE<br>ANTISTATIK VORRICHTUNG | ASTM A479 S31600                                                                                                             |
| 8   | STELO<br>STEM<br>TIGE<br>SPINDEL                                                               | ASTM A182 F304<br>A479 S30400 $\geq \varnothing 1\frac{1}{2}"$<br>ASTM A182 F316<br>A479 S31600                              |
| 9*  | BUSSOLA<br>STEM SEAL<br>JOINT TIGE<br>UNTERE SPINDELABDICHTUNG                                 | P.T.F.E.                                                                                                                     |
| 10* | PACCO A "V"<br>CHEVRON RINGS<br>JOINT A "V"<br>3 FACHE DACHMANSCHETTE                          | P.T.F.E. / GRAFITE<br>P.T.F.E. / GRAPHITE<br>P.T.F.E. / GRAPHITE<br>P.T.F.E. / GRAPHIT                                       |

| N.  | DESCRIZIONE<br>DESCRIPTION<br>BESCHREIBUNG                                           | MATERIALI<br>MATERIALS<br>MATERIAUX<br>WERKSTOFFE                    |
|-----|--------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| 11  | PREMIBUSSOLA<br>PRESSING BUSH<br>PRESSE RONDELLE<br>STOPFBUCHSDRUCKRING              | ASTM A479 S31600                                                     |
| 12  | MOLLE A TAZZA<br>SPRING WASHERS<br>RONDELLES BELLEVILLE<br>TELLERFEDERN              | C72/50Cr V <sub>4</sub><br>ZINCATO - GALVANIZED<br>ZINGUE - VERZINKT |
| 13  | VITE DI FERMO E FERMO<br>PIN AND STOP PIN<br>PLOT ET PLOT D'ARRET<br>ANSCHLAGBOLZEN  | UNI 3740 - 8.8<br>ZINCATO - GALVANIZED<br>ZINGUE - VERZINKT          |
| 14  | DADO - CONTRODADO<br>NUT - LOCK NUT<br>ECROU - CONTRE-ECROU<br>MUTTER - KONTERMUTTER | UNI 3740 - 6S<br>ZINCATO - GALVANIZED<br>ZINGUE - VERZINKT           |
| 15  | LEVA<br>WRENCH<br>LEVIER<br>HANDHEBEL                                                | UNI 5946 Fe 37<br>ZINCATO - GALVANIZED<br>ZINGUE - VERZINKT          |
| 21  | GHIERA<br>INSERT<br>EMBOUT<br>GEWINDEDRUCKRING                                       | ASTM A105<br>ASTM A 182 F316- A479 S31600                            |
| 22* | ANELLO<br>SEAL<br>ANNEAU<br>DICHTUNGSRING                                            | P.T.F.E.                                                             |
| 24  | GHIERA<br>INSERT<br>EMBOUT<br>GEWINDEDRUCKRING                                       | ASTM A105<br>ASTM A 182 F316- A479 S31600                            |
|     |                                                                                      |                                                                      |

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

## 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" | 8" |
|-----|------|------|------|------|-----|--------|--------|------|--------------------------------|----|----|----|----|----|
| A   | 8    | 8    | 10   | 10   | 12  | 12     | 16     | 16   |                                |    |    |    |    |    |
| B   | 5    | 5    | 6    | 6    | 8   | 8      | 10     | 12   |                                |    |    |    |    |    |
| C   | 6    | 6    | 7    | 7    | 10  | 10     | 15     | 15   |                                |    |    |    |    |    |
| ØE  | 10   | 10   | 15   | 19   | 25  | 30     | 38     | 51   |                                |    |    |    |    |    |
| F   | M5   | M5   | M5   | M5   | M5  | M5     | M6     | M6   |                                |    |    |    |    |    |
| ISO | F03  | F03  | F03  | F03  | F03 | F03    | F05    | F05  |                                |    |    |    |    |    |
| G   | 25   | 25   | 25   | 25   | 25  | 25     | 35     | 35   |                                |    |    |    |    |    |
| H   | 50   | 50   | 70   | 74   | 90  | 97     | 113    | 123  |                                |    |    |    |    |    |
| L   | 24,5 | 24,5 | 30   | 32,5 | 39  | 43,5   | 51,5   | 60,5 |                                |    |    |    |    |    |
| M   | 120  | 120  | 145  | 145  | 185 | 185    | 280    | 280  |                                |    |    |    |    |    |
| P   | 21,5 | 21,5 | 30   | 34,5 | 46  | 51     | 57     | 67   |                                |    |    |    |    |    |
| R   | 12   | 12   | 14   | 14   | 17  | 17     | 20     | 20   |                                |    |    |    |    |    |
| S   | 60   | 60   | 75   | 80   | 90  | 110    | 120    | 140  |                                |    |    |    |    |    |
| T   | 36   | 36   | 36   | 36   | 36  | 36     | 50     | 50   |                                |    |    |    |    |    |
| PN  | 63   | 63   | 63   | 40   | 40  | 40     | 25     | 25   |                                |    |    |    |    |    |
| ~Kg | 1,5  | 1,5  | 2,3  | 3,1  | 4,4 | 6,2    | 9,5    | 15   | CARBON STEEL - STAINLESS STEEL |    |    |    |    |    |
| ~Kg |      |      | 2    |      | 4   |        | 8,8    |      | STAINLESS STEEL                |    |    |    |    |    |

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

EXECUTION 17

EXECUTION 18

Ø 1/4"÷3/8" SEAT IN R.P.T.F.E.



ADLER SpA - VALVOLE A SFERA  
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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ISO 15848 by TÜV  
ANTISTATIC DEVICE by L.R.  
FIRE SAFE TESTED ISO 10497 by L.R.

TYPE  
**FT6**  
PN 25 ÷ 63

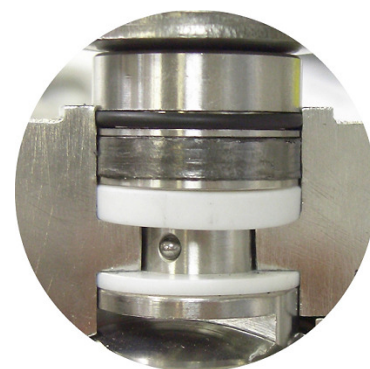
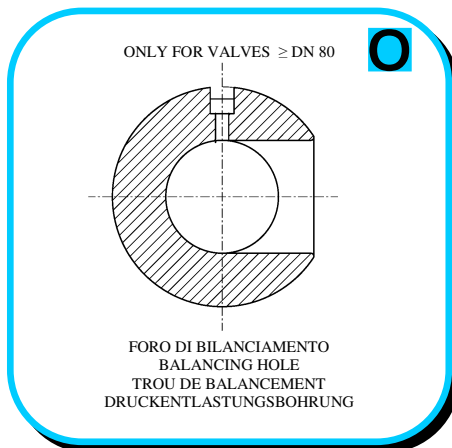
VALVOLE A SFERA "3 VIE" PASSAGGIO TOTALE 90°  
BALL VALVES "3 VIE" FULL BORE 90°

ROBINETS A BOULE "3 VOIES" PASSAGE INTEGRAL 90°  
KUGELHÄHNE "3 WEGE" VOLLER DURCHGANG 90°

▪ ESECUZIONI ▪ EXECUTIONS ▪ EXECUTIONS ▪ AUSFÜHRUNGEN



EXECUTION 4 - 12



EXECUTION 6 - 16

**S** STANDARD

**O** OPTIONAL

**1**

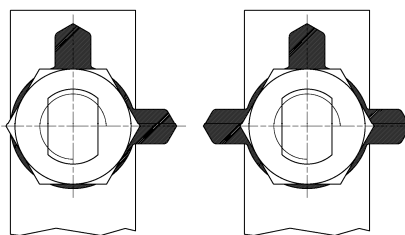
**S**

SEE TABLE 23  
FOR TYPE  
OF THREAD

**2**

INDICATORE DI FLUSSO  
FLOW INDICATOR

**S**



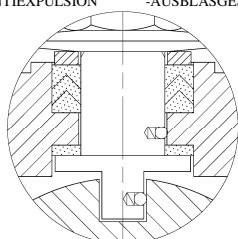
**ADLER**

UNA GAMMA COMPLETA  
PRIVILEGIANDO LA QUALITÀ  
A COMPLETE RANGE PRIVILEGING  
THE QUALITY

**4**

**S**

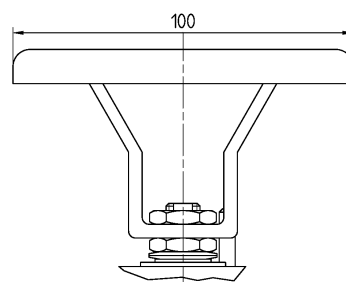
-STELO ANTI ESPULSIONE -ANTI BLOW OUT STEM  
-TIGE ANTIEXPULSION -AUSBLASGESICHERTE WELLE



-PACCO A "V" -CHEVRON RINGS  
-JOINT A "V" -3 FACHE DACHMANSCHETE  
ANTISTATIC DEVICE ANTISTATIK VORRICHTUNG  
BS 5146

**5**

**O**

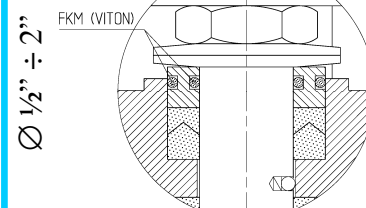


-MANIGLIA OVALE -OVAL HANDLE  
-LEVIER OVAL -HANDBEHEL IN OVALFORM

**6**

BREVETTO - PATENTED  
00219688

**O**



-“O” RING STELO “O” RING ON STEM  
-TIGE AVEC “O” RING  
-“O” RING IM SPINDELBEREICH





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

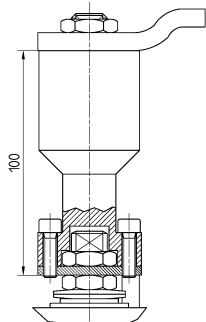
**TYPE**  
**FT6**  
**PN 25 ÷ 63**

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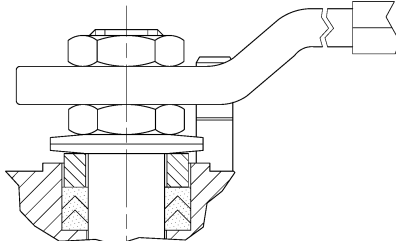
• ESECUZIONI • EXECUTIONS • EXECUTIONS • AUSFÜHRUNGEN

**7**



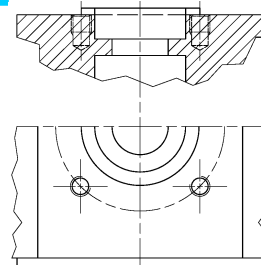
-PROLUNGA STELO -STEM EXTENSION  
 -TIGE PROLONGEE -SPINDELVERLÄNGERUNG

**8**



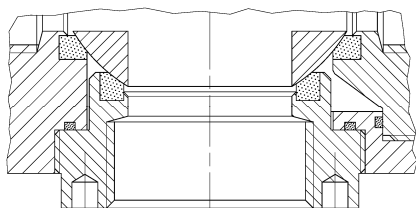
-PARTICOLARI INOX -STAINLESS STEEL DETAILS  
 -ACCESSOIRES EN INOX -EDELSTAHLTEILE

**9**



-ATTACCO "ISO" -"ISO" FASTENING  
 -SYSTEM "ISO" -ANSCHLSS "ISO"

**10**



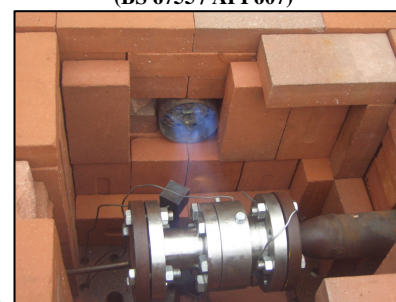
-SFERA CONTENUTA -CONTENTS BALL  
 -BOULE CONTENUE  
 -NICHT RAUSRAGENDE KUGEL

**AQUILA - EAGLE - AIGLE**  
**ADLER**

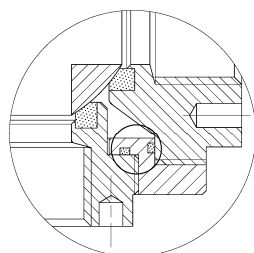


**12**

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



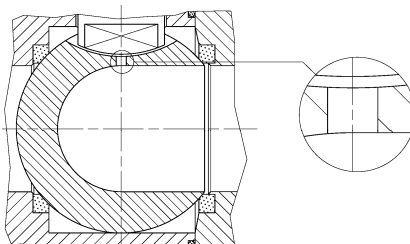
**13**



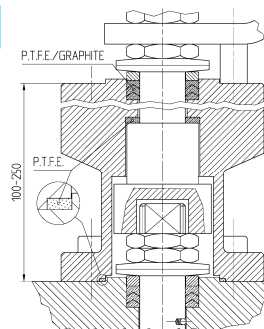
-ANELLO CONTENUTO -CONTAINED SEAL  
 -ANNEAU CONTENU -DICHRING GEKAMMERT  
 -GHIERA A BATTUTA -METAL BEATING RING  
 -EMBOUT AVEC BATTUE MECANIQUE  
 -METALLISCHER ANSCHLAG DES  
 GEWINDEDRUCKRINGS

**14**

-FORO DI SCARICO NELLA SFERA  
 -OVERPRESSURE HOLE INTO BALL  
 -TROU DECOMPRESSION DANS LA BOULE  
 -ENTLASTUNGSBOHRUNG IN DER KUGEL



**15**



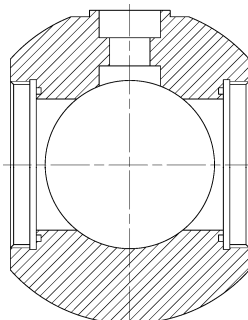
-SERVIZIO CRIOGENICO - CRYOGENIC SERVICE  
 -SERVICE CRYOGÉNIQUE  
 -TIEFTEMPERATUR SERVICE

**CERTIFY ISO 9001:2008**



**17**

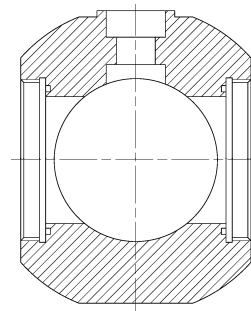
**VALVOLE IN ACCIAIO INOX**  
**STAINLESS STEEL BALL VALVES**  
 $\varnothing 1/4'' - 3/8'' - 3/4'' - 1 1/4'' - 2''$



**VALVOLE IN ACCIAIO AL CARBONIO**  
**CARBON STEEL BALL VALVES**

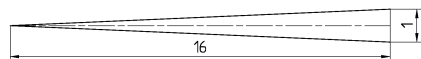
**18**

$\varnothing 1/2'' - 1'' - 1 1/2''$



**VALVOLE IN ACCIAIO INOX**  
**STAINLESS STEEL BALL VALVES**

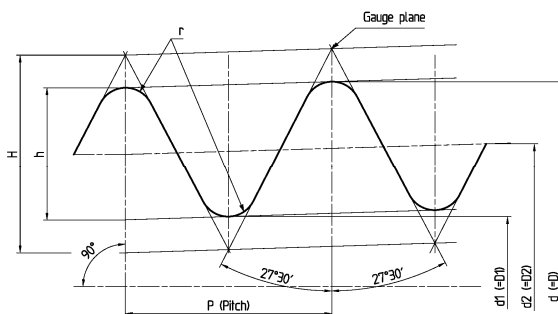
**IN ACCORDANCE TO**  
**ISO 7-1 – 1994**



$$H = 0.960\ 237\ P$$

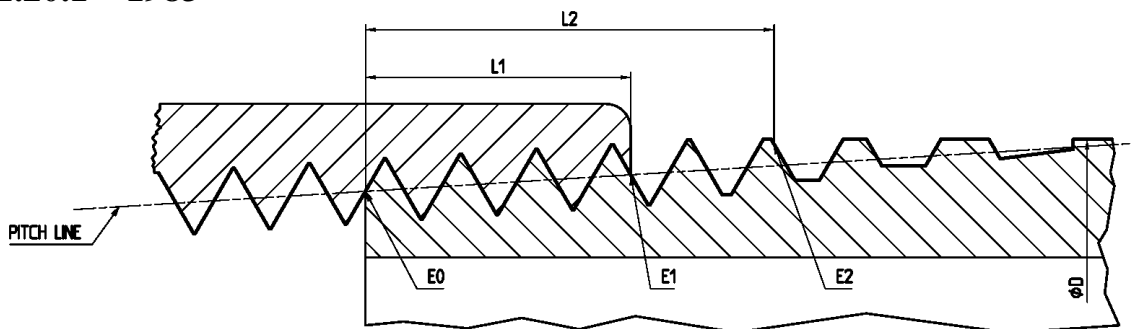
$$h = 0.640\ 327\ P$$

$$r = 0.137\ 278\ P$$



| 1                          | 2                               | 3                 | 4                            | 5                            | 6                           | 7                           | 8                                   | 9                          | 10                 | 11   | 12   | 13                                                              | 14  | 15                                                   | 16                          | 17                          | 18                   | 19                 | 20                                                 |
|----------------------------|---------------------------------|-------------------|------------------------------|------------------------------|-----------------------------|-----------------------------|-------------------------------------|----------------------------|--------------------|------|------|-----------------------------------------------------------------|-----|------------------------------------------------------|-----------------------------|-----------------------------|----------------------|--------------------|----------------------------------------------------|
| Designation of thread size | Number of threads<br>in 25,4 mm | Pitch<br><i>P</i> | Height of thread<br><i>h</i> | Diameters of<br>gauges plane |                             |                             | Gauges length<br>(external threads) |                            |                    |      |      | Tolerance on<br>position of<br>gauge plan on<br>internal thread |     | Length of useful<br>external thread not<br>less than |                             |                             | Fitting<br>allowance |                    | Diameter tolerance on<br>parallel internal threads |
|                            |                                 |                   |                              | Major<br><br>d               | Pitch<br><br>d <sub>2</sub> | Minor<br><br>d <sub>1</sub> | Nominal                             | Tolerance<br>± <i>t</i> /2 |                    | Max. | Min. | Tolerance<br>± <i>t</i> /2                                      |     | For nominal<br>gauge length                          | For maximum<br>gauge length | For minimum<br>gauge length | 2)                   | Turns of<br>thread |                                                    |
|                            |                                 |                   |                              |                              |                             |                             |                                     | Turns of<br>thread         | Turns of<br>thread |      |      |                                                                 |     |                                                      |                             |                             |                      |                    |                                                    |
| ¼                          | 19                              | 1,337             | 0,856                        | 13,15                        | 12,30                       | 11,44                       | 6                                   | 1,3                        | 1                  | 7,3  | 4,7  | 1,7                                                             | 1 ¼ | 9,7                                                  | 11                          | 8,4                         | 3,7                  | 2 ¾                | ±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 ¼ | 10,1                                                 | 11,4                        | 8,8                         | 3,7                  | 2 ¾                | ±0,104                                             |
| ½                          | 14                              | 1,814             | 1,162                        | 20,95                        | 19,79                       | 18,63                       | 8,2                                 | 1,8                        | 1                  | 10   | 6,4  | 2,3                                                             | 1 ¼ | 13,2                                                 | 15                          | 11,4                        | 5                    | 2 ¾                | ±0,142                                             |
| ¾                          | 14                              | 1,814             | 1,162                        | 26,44                        | 25,27                       | 24,11                       | 9,5                                 | 1,8                        | 1                  | 11,3 | 7,7  | 2,3                                                             | 1 ¼ | 14,5                                                 | 16,3                        | 12,7                        | 5                    | 2 ¾                | ±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 ¼ | 16,8                                                 | 19,1                        | 14,5                        | 6,4                  | 2 ¾                | ±0,180                                             |
| 1 ¼                        | 11                              | 2,309             | 1,479                        | 41,91                        | 40,43                       | 38,95                       | 12,7                                | 2,3                        | 1                  | 15   | 10,4 | 2,9                                                             | 1 ¼ | 19,1                                                 | 21,4                        | 16,8                        | 6,4                  | 2 ¾                | ±0,180                                             |
| 1 ½                        | 11                              | 2,309             | 1,479                        | 47,80                        | 46,32                       | 44,84                       | 12,7                                | 2,3                        | 1                  | 15   | 10,4 | 2,9                                                             | 1 ¼ | 19,1                                                 | 21,4                        | 16,8                        | 6,4                  | 2 ¾                | ±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 ¼ | 23,4                                                 | 25,7                        | 21,1                        | 7,5                  | 3 ¼                | ±0,180                                             |

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



| 1                       | 2                               | 3                                | 4                                   | 5                                                                              | 6                                             | 7       | 8                                               | 9                                             | 10      | 11                                              |
|-------------------------|---------------------------------|----------------------------------|-------------------------------------|--------------------------------------------------------------------------------|-----------------------------------------------|---------|-------------------------------------------------|-----------------------------------------------|---------|-------------------------------------------------|
| Nominal<br>Pipe<br>Size | O.D. of<br>Pipe<br>( <i>D</i> ) | Threads/<br>inch<br>( <i>n</i> ) | Pitch of<br>threads<br>( <i>P</i> ) | Pitch diam.<br>at beginning<br>of external<br>thread ( <i>E</i> <sub>0</sub> ) | Handtight engagement                          |         |                                                 | Effective thread, external                    |         |                                                 |
|                         |                                 |                                  |                                     |                                                                                | Length <sup>2</sup> ( <i>L</i> <sub>1</sub> ) |         | Diam. <sup>3</sup><br>( <i>E</i> <sub>1</sub> ) | Length <sup>4</sup> ( <i>L</i> <sub>2</sub> ) |         | Diam. <sup>5</sup><br>( <i>E</i> <sub>2</sub> ) |
|                         |                                 |                                  |                                     |                                                                                | inch                                          | threads |                                                 | inch                                          | threads |                                                 |
| ¼                       | 0,540                           | 18                               | 0,05556                             | 0,47739                                                                        | 0,2278                                        | 4,1     | 0,49163                                         | 0,4018                                        | 723     | 0,50250                                         |
| 3/8                     | 0,675                           | 18                               | 0,05556                             | 0,61201                                                                        | 0,240                                         | 4,32    | 0,32701                                         | 0,4078                                        | 734     | 0,63750                                         |
| ½                       | 0,840                           | 14                               | 0,07143                             | 0,75843                                                                        | 0,320                                         | 4,48    | 0,77843                                         | 0,5337                                        | 747     | 0,79179                                         |
| ¾                       | 1,050                           | 14                               | 0,07143                             | 0,96768                                                                        | 0,339                                         | 4,75    | 0,98887                                         | 0,5457                                        | 764     | 1,00179                                         |
| 1                       | 1,315                           | 11,5                             | 0,0896                              | 1,21363                                                                        | 0,400                                         | 4,6     | 1,23863                                         | 0,6828                                        | 785     | 1,25630                                         |
| 1 ¼                     | 1,660                           | 11,5                             | 0,0896                              | 1,55713                                                                        | 0,420                                         | 4,83    | 1,58338                                         | 0,7068                                        | 813     | 1,60130                                         |
| 1 ½                     | 1,900                           | 11,5                             | 0,0896                              | 1,79609                                                                        | 0,420                                         | 4,83    | 1,82237                                         | 0,7235                                        | 832     | 1,84130                                         |
| 2                       | 2,375                           | 11,5                             | 0,0896                              | 2,26902                                                                        | 0,436                                         | 5,01    | 2,29627                                         | 0,7565                                        | 870     | 2,31630                                         |