

## PLUG VALVES







#### STANDARD PRODUCTION RANGE

LUBRICATED PLUG VALVES

**INVERTED TYPE** 

DN 2"-24"

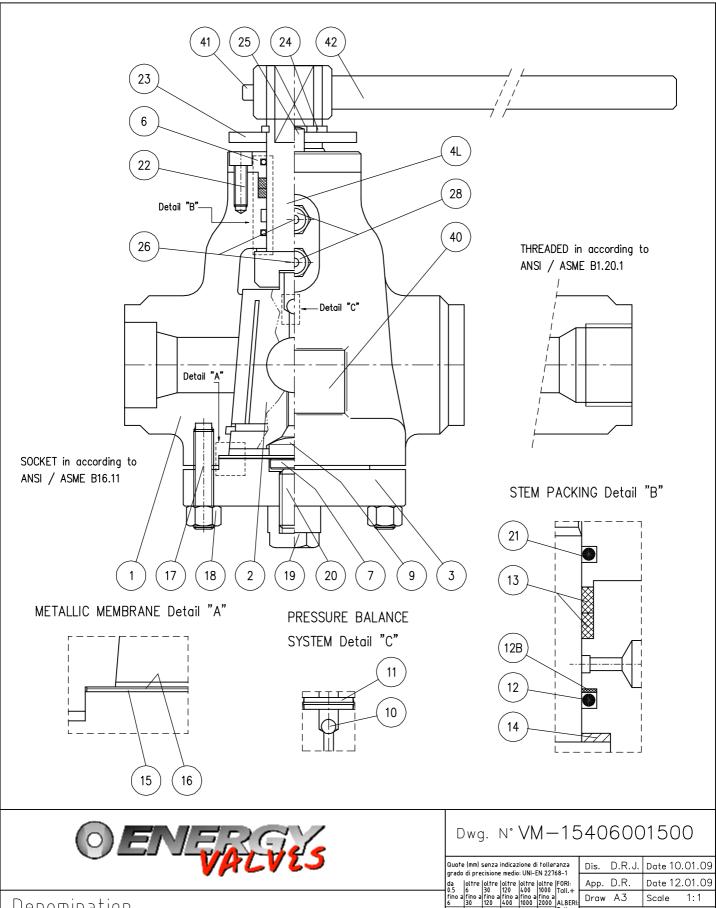
Class 150# - 2500#

API 6D - ISO 14313

REGULAR PATTERN - VENTURI PATTERN



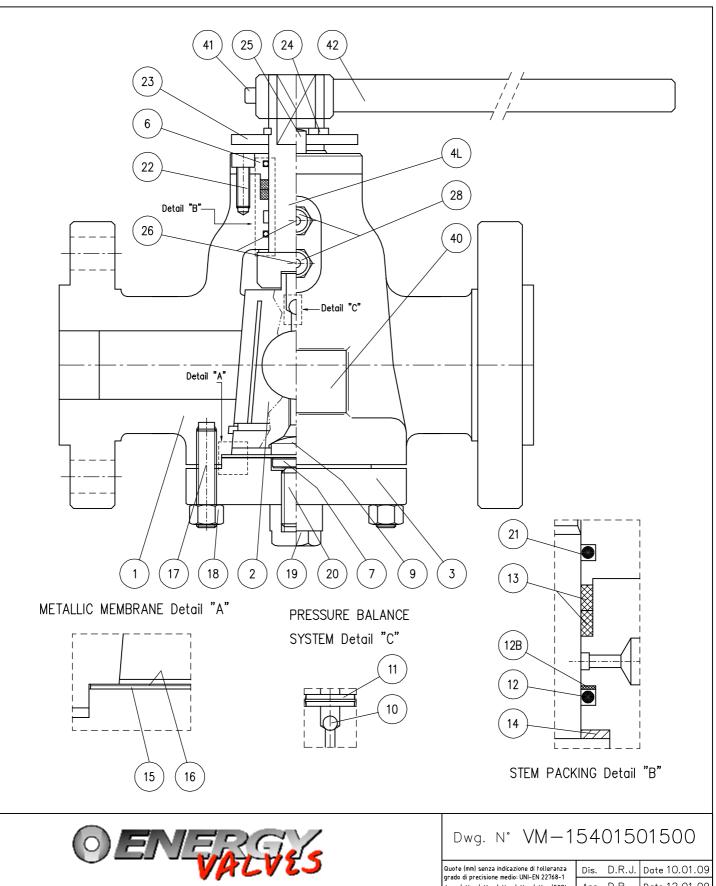




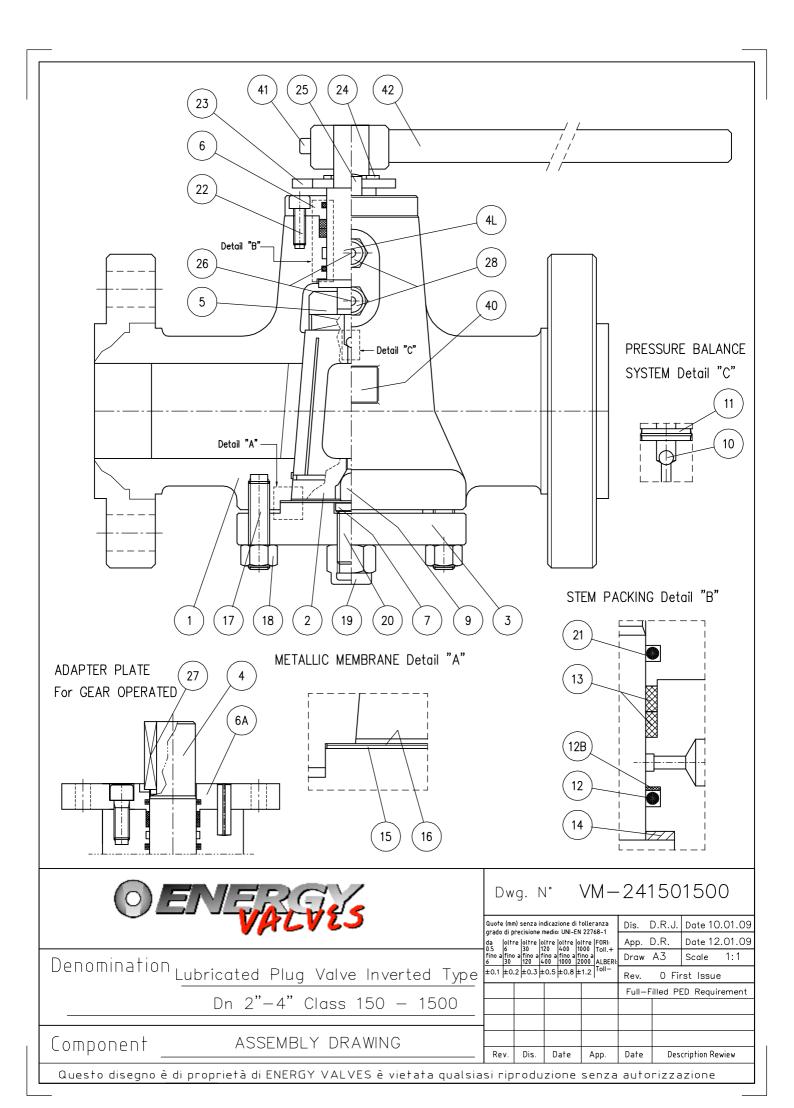
## Denomination Lubricated Plug Valve Inverted Type Dn 1/2"-1.1/2" Class 600 - 1500

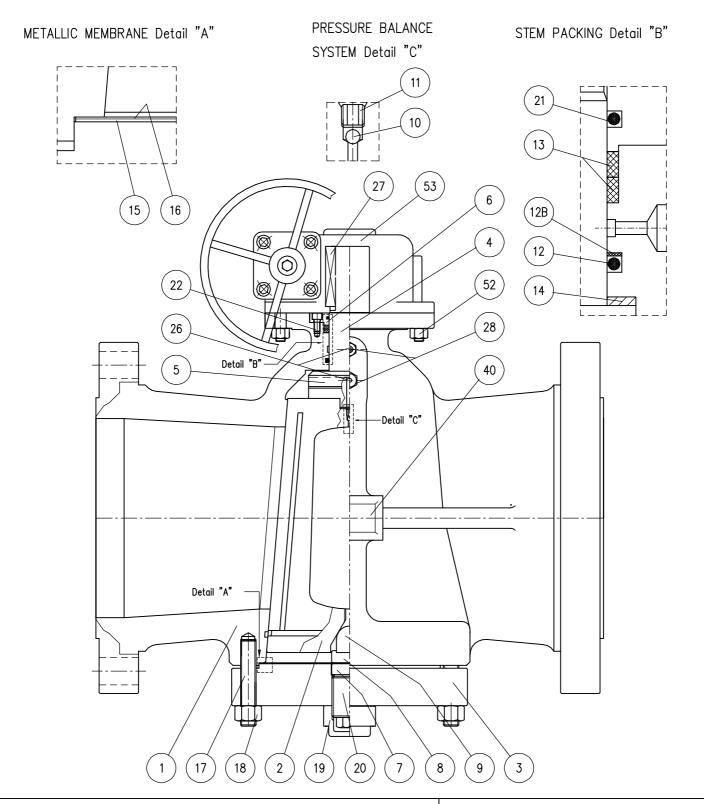
Component ASSEMBLY DRAWING

|             |                     | senza<br>ecisione |                           |                        |                             |         | Dis.                  | D.R.J.             | Date 10 | .01.09 |  |  |  |  |
|-------------|---------------------|-------------------|---------------------------|------------------------|-----------------------------|---------|-----------------------|--------------------|---------|--------|--|--|--|--|
| da          |                     | oltre             | oltre                     | oltre                  | oltre                       |         | App. D.R. Date 12.01. |                    |         |        |  |  |  |  |
| fino a<br>6 | fino<br>30          | a fino a<br>120   | fino a<br>400             | fino a<br>1000         | fino a<br>2000              | ALBERI: | Draw                  | A3                 | Scale   | 1:1    |  |  |  |  |
| ±0.1        | ±0.2                | 2 ±0.3            | ±0.3 ±0.5 ±0.8 ±1.2 Toll- |                        |                             |         |                       | Rev. 0 First Issue |         |        |  |  |  |  |
|             |                     |                   |                           |                        | Full-Filled PED Requirement |         |                       |                    |         |        |  |  |  |  |
|             |                     |                   |                           |                        |                             |         |                       |                    |         |        |  |  |  |  |
|             |                     |                   |                           |                        |                             |         |                       |                    |         |        |  |  |  |  |
|             |                     |                   |                           |                        |                             |         |                       |                    |         |        |  |  |  |  |
| Re          | Rev. Dis. Date App. |                   | Date                      | ate Description Rewiew |                             |         |                       |                    |         |        |  |  |  |  |
|             |                     |                   |                           |                        |                             |         |                       |                    |         |        |  |  |  |  |



# Denomination Lubricated Plug Valve Inverted Type Dn 1/2"-1.1/2" Class 150 - 1500 ASSEMBLY DRAWING Rev. Dis. Date App. Date Description Rewiew Questo disegno è di proprietà di ENERGY VALVES è vietata qualsiasi riproduzione senza autorizzazione





## O ENERGYS

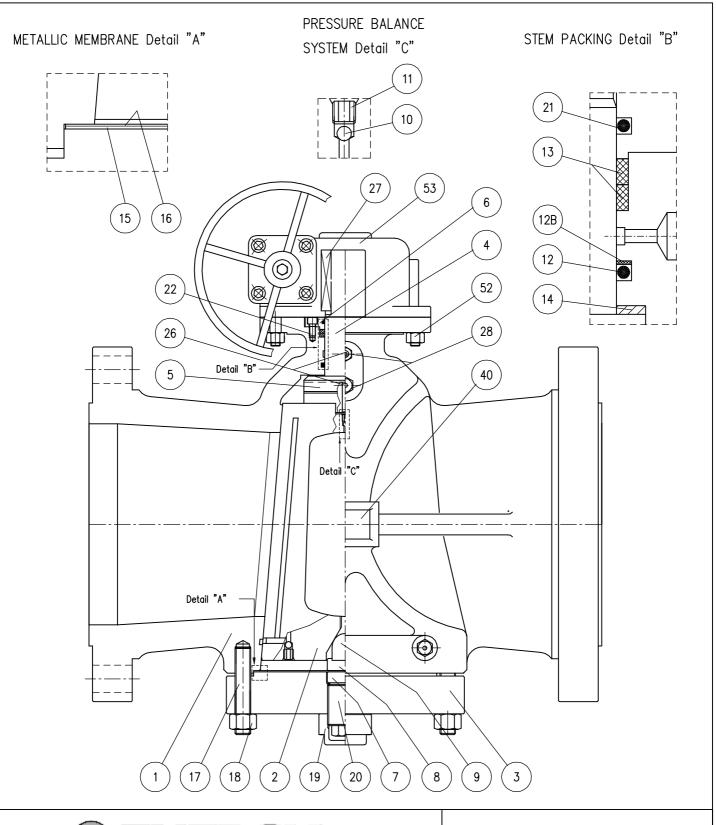
Denomination Lubricated Plug Valve Inverted Type

Dn 6"-12" Class 150 - 1500

Component ASSEMBLY DRAWING

Dwg. N° VM-6121501500

|   |             |                     | ) senza i       |               |                |                |             | Dis.               | .01.09 |         |               |  |  |
|---|-------------|---------------------|-----------------|---------------|----------------|----------------|-------------|--------------------|--------|---------|---------------|--|--|
|   | -           |                     |                 |               |                |                |             |                    | D.R.   | Date 12 | Date 12.01.09 |  |  |
|   | fino a<br>6 | 30                  | a fino a<br>120 | fino a<br>400 | fino a<br>1000 | fino a<br>2000 | ALBERI:     | Draw               | А3     | Scale   | 1:1           |  |  |
| : | ±0.1        | ±0.                 | 2 ±0.3          | ±0.5          | ±0.8           | ±1.2 Toll-     |             | Rev. O First Issue |        |         |               |  |  |
|   |             |                     |                 |               |                | Full-          | Filled P    | ED Requir          | ement  |         |               |  |  |
|   |             |                     |                 |               |                |                |             |                    |        |         |               |  |  |
|   |             |                     |                 |               |                |                |             |                    |        |         |               |  |  |
|   |             |                     |                 |               |                |                |             |                    |        |         |               |  |  |
|   | Re          | Rev. Dis. Date App. |                 | рр.           | Date           | Des            | cription Re | wiew               |        |         |               |  |  |
|   |             |                     |                 |               |                |                |             |                    |        |         |               |  |  |



## O ENERGY

Denomination Lubricated Plug Valve Inverted Type

Dn 14"-24" Class 150 - 600

Component ASSEMBLY DRAWING

Dwg. N° VM-1424150600

|             |                                    | senza i<br>ecisione |               |                         |                             |         | Dis.               | D.R.J. | Date 10 | .01.09 |  |  |
|-------------|------------------------------------|---------------------|---------------|-------------------------|-----------------------------|---------|--------------------|--------|---------|--------|--|--|
| da          | '                                  |                     |               |                         |                             |         | App.               | D.R.   | Date 12 | .01.09 |  |  |
| fino a<br>6 | fino<br>30                         | a fino a<br>120     | fino a<br>400 | fino a<br>1000          | fino a<br>2000              | ALBERI: | Draw               | А3     | Scale   | 1:1    |  |  |
| ±0.1        | 0.1 ±0.2 ±0.3 ±0.5 ±0.8 ±1.2 Toll- |                     |               |                         |                             | Toll-   | Rev. O First Issue |        |         |        |  |  |
|             |                                    |                     |               |                         | Full-Filled PED Requirement |         |                    |        |         |        |  |  |
|             |                                    |                     |               |                         |                             |         |                    |        |         |        |  |  |
|             |                                    |                     |               |                         |                             |         |                    |        |         |        |  |  |
|             |                                    |                     |               |                         |                             |         |                    |        |         |        |  |  |
| Re          | Rev. Dis. Date App.                |                     | Date          | Date Description Rewiew |                             |         |                    |        |         |        |  |  |
|             |                                    | 1                   | ٠.            |                         |                             |         |                    |        |         |        |  |  |

SERVICE: TEMPERATURE: -20 °C + 160°C STANDARD FLUID - CARBON STEEL TRIM - FIRE SAFE DESIGN PART.N° **DESCRIPTION** NOTE MATERIAL BODY ASTM A 105 02 PLUG ASTM A 105 Super LOMU Treatment 03 COVER ASTM A 105 04L LEVER STEM AISI 4140 05 EQUALIZER RING AISI 4140 06 GLAND PLATE ASTM A 105 07 THRUST BUTTON AISI 1040 08 LOWER BEARING PAD AISI 4140 09 UPPER BEARING PAD AISI 4140 10 BALL PRESSURE BALANCE AISI 302 PIN C100 11 12 STEM O-RING VITON STEM BACK-UP RING 12B NYLON For Class 900 - 1500 13 PACKING GRAPHITE 14 THRUST BEARING AISI 304/PTFE 15 LOWER DIAPHRAGM Fe 360 B 16 UPPER DIAPHRAGM AISI 304 17 **BODY STUDS** ASTM A 193 B7 18 **BODY NUTS** ASTM A 194 2H 19 SCREW CAP Class 5S ADJUSTING SCREW AISI 1040 20 NITRILE 21 GLAND PLATE O-RING GLAND PLATE CAP-SCREW Class 8.8 23 STOP COLLAR Fe 360 B 24 SEEGER C100 STOP PIN 25 C100 CHECK VALVE 26 AISI 304 27 STEM KEY AISI 4140 28 GREASE FITTING AISI 304 40 NAME PLATE AISI 304 LEVER SCREW 41 Class 8.8 42 WRENCH Fe 510 B

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Dwg. N°VMB0-15401501500

Quote (mm) senza indicazione di tolleranza grado di precisione medio: UNI-EN 12768-1
da loltre loltr

Denomination Lubricated Plug Valve Inverted Type Dn 1/2"-1.1/2" Class 150-1500

Component BILL OF MATERIAL

TEMPERATURE: -20 °C + 160°C STANDARD FLUID - CARBON STEEL TRIM - FIRE SAFE DESIGN SERVICE: PART.N° DESCRIPTION MATERIAL NOTE ASTM A 216 WCB 01 BODY Super LOMU Treatment 02 **PLUG** ASTM A 105 03 ASTM A 105 COVER 04 STEM AISI 4140 04L LEVER STEM AISI 4140 05 AISI 4140 EQUALIZER RING 06 GLAND PLATE ASTM A 105 06A ADAPTER PLATE ASTM A 105 07 THRUST BUTTON AISI 1040 08 LOWER BEARING PAD AISI 4140 09 UPPER BEARING PAD AISI 4140 10 BALL PRESSURE BALANCE AISI 302 11 PIN C100 12 STEM O-RING VITON 12B STEM BACK-UP RING NYLON For Class 900 - 1500 13 **PACKING GRAPHITE** 14 THRUST BEARING AISI 304/PTFE 15 LOWER DIAPHRAGM Fe 360 B AISI 304 16 UPPER DIAPHRAGM 17 **BODY STUDS** ASTM A 193 B7 18 **BODY NUTS** ASTM A 194 2H 19 SCREW CAP Class 5S 20 ADJUSTING SCREW AISI 1040 21 GLAND PLATE O-RING **NITRILE** 22 GLAND PLATE CAP-SCREW Class 8.8 23 STOP COLLAR Fe 360 B 24 SEEGER C100 25 STOP PIN C100 26 CHECK VALVE AISI 304 <u>AISI</u> 4140 27 STEM KEY 28 GREASE FITTING AISI 304 40 NAME PLATE AISI 304 41 LEVER SCREW Class 8.8 WRENCH Fe 510 B 42 Class 8.8 52 SCREW GEAR 53 CARBON STEEL GEAR

Dwg. N° VMB0-1541501500

SERVICE: TEMPERATURE: -20 °C + 160°C

STANDARD FLUID - CARBON STEEL TRIM - FIRE SAFE DESIGN

| PART.N° | DESCRIPTION           | MATERIAL       | NOTE                 |
|---------|-----------------------|----------------|----------------------|
| 01      | BODY                  | ASTM A 216 WCB |                      |
| 02      | PLUG                  | ASTM A 105     | Super LOMU Treatment |
| 03      | COVER                 | ASTM A 105     |                      |
| 04      | STEM                  | AISI 4140      |                      |
| 04L     | LEVER STEM            | AISI 4140      |                      |
| 05      | EQUALIZER RING        | AISI 4140      |                      |
| 06      | GLAND PLATE           | ASTM A 105     |                      |
| 06A     | ADAPTER PLATE         | ASTM A 105     |                      |
| 07      | THRUST BUTTON         | AISI 1040      |                      |
| 80      | LOWER BEARING PAD     | AISI 4140      |                      |
| 09      | UPPER BEARING PAD     | AISI 4140      |                      |
| 10      | BALL PRESSURE BALANCE | AISI 302       |                      |
| 11      | PIN                   | C100           |                      |
| 12      | STEM O-RING           | VITON          |                      |
| 12B     | STEM BACK-UP RING     | NYLON          | For Class 900 - 1500 |
| 13      | PACKING               | GRAPHITE       |                      |
| 14      | THRUST BEARING        | AISI 304/PTFE  |                      |
| 15      | LOWER DIAPHRAGM       | Fe 360 B       |                      |
| 16      | UPPER DIAPHRAGM       | AISI 304       |                      |
| 17      | BODY STUDS            | ASTM A 193 B7  |                      |
| 18      | BODY NUTS             | ASTM A 194 2H  |                      |
| 19      | SCREW CAP             | Class 5S       |                      |
| 20      | ADJUSTING SCREW       | AISI 1040      |                      |
| 21      | GLAND PLATE O-RING    | NITRILE        |                      |
| 22      | GLAND PLATE CAP-SCREW | Class 8.8      |                      |
| 26      | CHECK VALVE           | AISI 304       |                      |
| 27      | STEM KEY              | AISI 4140      |                      |
| 28      | GREASE FITTING        | AISI 304       |                      |
| 40      | NAME PLATE            | AISI 304       |                      |
| 41      | LEVER SCREW           | Class 8.8      |                      |
| 42      | WRENCH                | Fe 510 B       |                      |
| 52      | SCREW GEAR            | Class 8.8      |                      |
| 53      | GEAR                  | CARBON STEEL   |                      |

Dwg. N° VMB0-6121501500

Quote (mm) senza indicazione di tolleranza grado di precisione medio: UNI-EN 12768-1
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Denomination Lubricated Plug Valve Inverted Type

Dn 6"-12" Class 150 - 1500

Component BILL OF MATERIAL

SERVICE: TEMPERATURE: -20 ℃ + 160℃

STANDARD FLUID - CARBON STEEL TRIM - FIRE SAFE DESIGN

| PART.N° | DESCRIPTION           | MATERIAL       | NOTE                 |
|---------|-----------------------|----------------|----------------------|
| 01      | BODY                  | ASTM A 216 WCB |                      |
| 02      | PLUG                  | ASTM A 105     | Super LOMU Treatment |
| 03      | COVER                 | ASTM A 105     |                      |
| 04      | STEM                  | AISI 4140      |                      |
| 05      | EQUALIZER RING        | AISI 4140      |                      |
| 06      | GLAND PLATE           | ASTM A 105     |                      |
| 07      | THRUST BUTTON         | AISI 1040      |                      |
| 08      | LOWER BEARING PAD     | AISI 4140      |                      |
| 09      | UPPER BEARING PAD     | AISI 4140      |                      |
| 10      | BALL PRESSURE BALANCE | AISI 302       |                      |
| 11      | PIN                   | C100           |                      |
| 12      | STEM O-RING           | VITON          |                      |
| 12B     | STEM BACK-UP RING     | NYLON          | For Class 900 - 1500 |
| 13      | PACKING               | GRAPHITE       |                      |
| 14      | THRUST BEARING        | AISI 304/PTFE  |                      |
| 15      | LOWER DIAPHRAGM       | Fe 360 B       |                      |
| 16      | UPPER DIAPHRAGM       | AISI 304       |                      |
| 17      | BODY STUDS            | ASTM A 193 B7  |                      |
| 18      | BODY NUTS             | ASTM A 194 2H  |                      |
| 19      | SCREW CAP             | Class 5S       |                      |
| 20      | ADJUSTING SCREW       | AISI 1040      |                      |
| 21      | GLAND PLATE O-RING    | NITRILE        |                      |
| 22      | GLAND PLATE CAP-SCREW | Class 8.8      |                      |
| 26      | CHECK VALVE           | AISI 304       |                      |
| 27      | STEM KEY              | AISI 4140      |                      |
| 28      | GREASE FITTING        | AISI 304       |                      |
| 40      | NAME PLATE            | AISI 304       |                      |
| 52      | SCREW GEAR            | Class 8.8      |                      |
| 53      | GEAR                  | CARBON STEEL   |                      |

Dwg. N°VMB0-14241501500

Denomination Lubricated Plug Valve Inverted Type

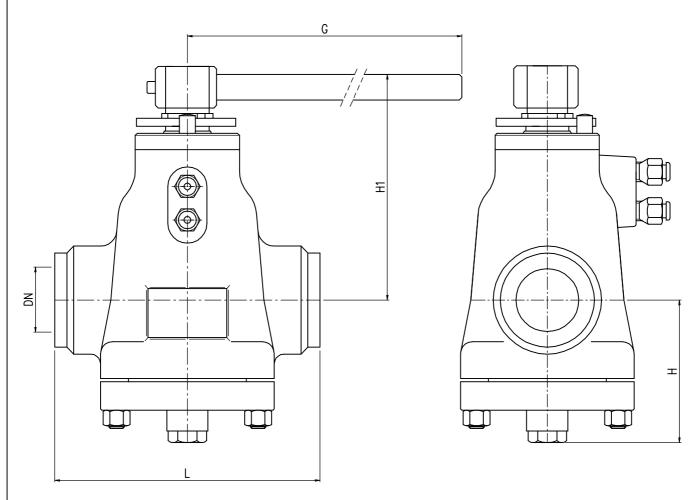
Dis. D.R.J. Date 10.01.09

App. D.R. Date 12.01.09

App. Draw A3 Scale 1:1

App. Draw A3

| NB     | DN | Port Area | THD | L<br><sub>I</sub> WE | Н   | H1  | G   | Weight |
|--------|----|-----------|-----|----------------------|-----|-----|-----|--------|
| 1/2"   | 15 | 70%       | 89  | 89                   | 90  | 110 | 400 | 3      |
| 3/4"   | 20 | 70%       | 133 | 133                  | 90  | 110 | 400 | 7      |
| 1"     | 25 | 70%       | 133 | 133                  | 90  | 110 | 400 | 7      |
| 1.1/2" | 40 | 70%       | 229 | 229                  | 105 | 120 | 600 | 20     |
| 2"     | 50 | 70%       | 229 | 229                  | 120 | 155 | 600 | 25     |



- Flanges in according with ANSI B.16.5
- Buttwelding end in according with ANSI B.16.25
- Face to face dimensions according to API 6D spec.
- Valves in according to API 6D spec. API 599
- Dimensions are in mm.
- Estimated valve weight are in Kg.



Denomination Lubricated Plug Valve Inverted Type

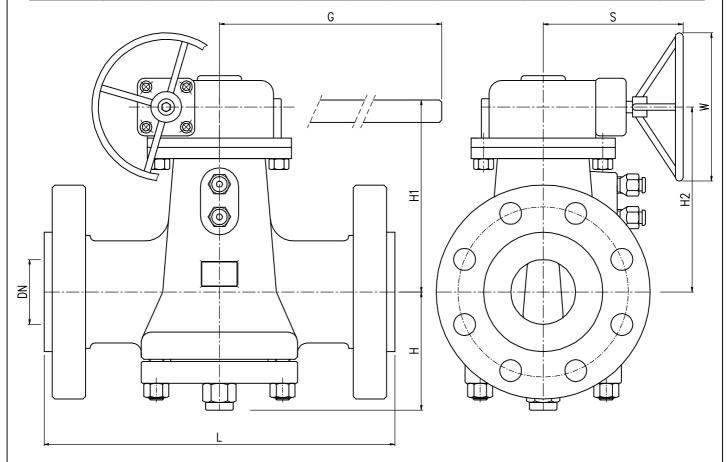
Dn 1/2"-1.1/2" Class 600-800-1500

Component OVERALL DIMENSIONS

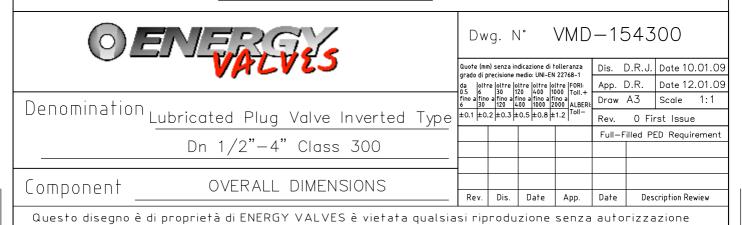
Dwg. N° VMD-15406001500

Quote (mm) senza indicazione di tolleranza grado di precisione medio: UNI-EN 22768-1
da loltre loltr

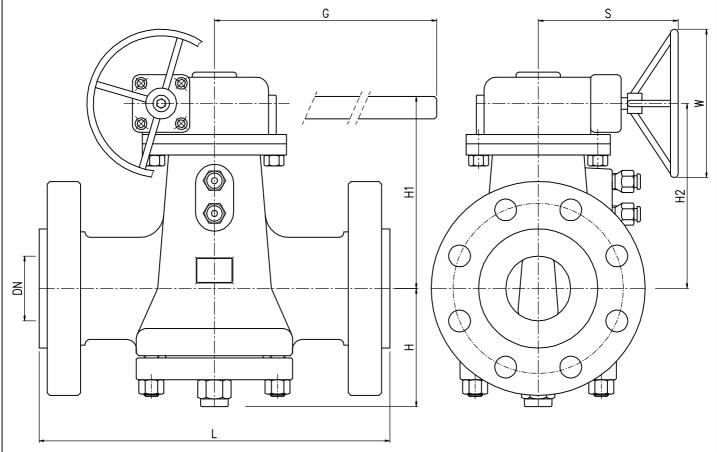
| NB     | DN  | Port Area | RF  | L<br>I WE | ı RTJ | Н   | H1  | G   | H2  | S   | W   | Wei<br>RF | ght<br>WE |
|--------|-----|-----------|-----|-----------|-------|-----|-----|-----|-----|-----|-----|-----------|-----------|
| 1/2"   | 15  | 70%       | 216 | _         | 216   | 90  | 110 | 400 | _   | _   | _   | 8         |           |
| 3/4"   | 20  | 70%       | 229 | _         | 229   | 90  | 110 | 400 | _   | _   | _   | 9         | _         |
| 1"     | 25  | 70%       | 254 | _         | 254   | 90  | 110 | 400 | _   | _   | _   | 10        | _         |
| 1.1/2" | 40  | 70%       | 305 | _         | 305   | 105 | 120 | 500 | _   | _   | _   | 14        | -         |
| 2"     | 50  | 70%       | 368 | 368       | 372   | 120 | 155 | 900 | 165 | 220 | 300 | 50        | 35        |
| 3"     | 80  | 70%       | 381 | 381       | 384   | 140 | 210 | 900 | 225 | 335 | 500 | 90        | 75        |
| 4"     | 100 | 70%       | 457 | 457       | 460   | 160 | 230 | 900 | 245 | 335 | 500 | 130       | 110       |



- Flanges in according with ASME B.16.5
- Buttwelding end in according with ANSI B.16.25
- Face to face dimensions according to API 6D spec.
- Valves in according to API 6D spec. API 599
- Dimensions are in mm.
- Estimated valve weight are in Kg.



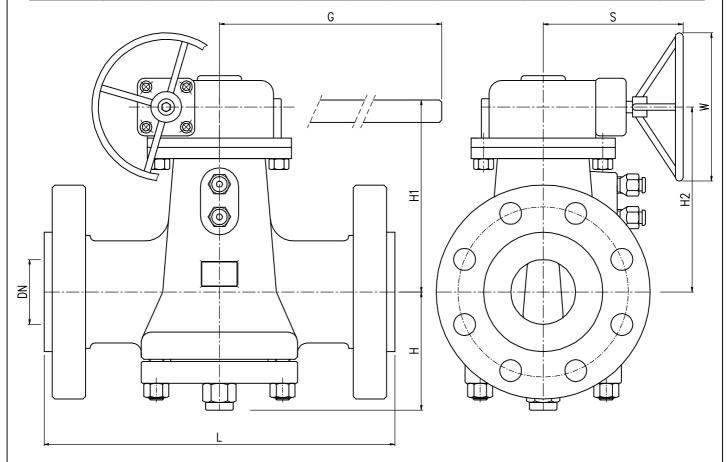
| NB     | DN  | Area | RF  | L<br>I WE | ı RTJ | Н   | H1  | G   | H2  | S   | W   | Wei<br>RF | ght<br>WE |
|--------|-----|------|-----|-----------|-------|-----|-----|-----|-----|-----|-----|-----------|-----------|
| 1/2"   | 15  | 70%  | 165 | _         | 165   | 90  | 110 | 400 | _   | _   | _   | 8         | _         |
| 3/4"   | 20  | 70%  | 190 | _         | 190   | 90  | 110 | 400 | _   | _   | _   | 9         | _         |
| 1"     | 25  | 70%  | 216 | _         | 216   | 90  | 110 | 400 | _   | _   | _   | 10        | _         |
| 1.1/2" | 40  | 70%  | 241 | _         | 241   | 105 | 120 | 500 | _   | _   | _   | 14        | _         |
| 2"     | 50  | 70%  | 292 | 292       | 295   | 120 | 155 | 600 | 165 | 220 | 300 | 30        | 25        |
| 3"     | 80  | 70%  | 356 | 356       | 359   | 140 | 210 | 600 | 225 | 220 | 300 | 45        | 35        |
| 4"     | 100 | 70%  | 432 | 432       | 435   | 160 | 230 | 900 | 245 | 220 | 300 | 85        | 75        |



- Flanges in according with ANSI B.16.5
- Buttwelding end in according with ANSI B.16.25
- Face to face dimensions according to API 6D spec.
- Valves in according to API 6D spec. API 599
- Dimensions are in mm.
- Estimated valve weight are in Kg.

#### VMD-154600 Dwg. N° Quote (mm) senza indicazione di tolleranza grado di precisione medio: UNI-EN 22768-1 D.R.J. Date 10.01.09 App. D.R. Date 12.01.09 Draw A3 Scale Denomination Lubricated Plug Valve Inverted Type ±0.1 ±0.2 ±0.3 ±0.5 ±0.8 ±1.2 O First Issue Rev. Full-Filled PED Requirement Dn 1/2"-4" Class 600 Component OVERALL DIMENSIONS Rev. Dis. Date Description Rewiew Questo disegno è di proprietà di ENERGY VALVES è vietata qualsiasi riproduzione senza autorizzazione

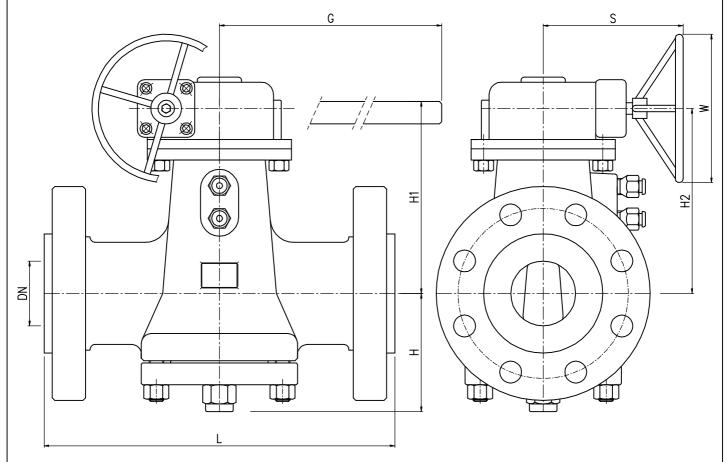
| NB     | DN  | Port Area | RF  | L<br>I WE | ı RTJ | Н   | H1  | G   | H2  | S   | W   | Wei<br>RF | ght<br>WE |
|--------|-----|-----------|-----|-----------|-------|-----|-----|-----|-----|-----|-----|-----------|-----------|
| 1/2"   | 15  | 70%       | 216 | _         | 216   | 90  | 110 | 400 | _   | _   | _   | 8         |           |
| 3/4"   | 20  | 70%       | 229 | _         | 229   | 90  | 110 | 400 | _   | _   | _   | 9         | _         |
| 1"     | 25  | 70%       | 254 | _         | 254   | 90  | 110 | 400 | _   | _   | _   | 10        | _         |
| 1.1/2" | 40  | 70%       | 305 | _         | 305   | 105 | 120 | 500 | _   | _   | _   | 14        | -         |
| 2"     | 50  | 70%       | 368 | 368       | 372   | 120 | 155 | 900 | 165 | 220 | 300 | 50        | 35        |
| 3"     | 80  | 70%       | 381 | 381       | 384   | 140 | 210 | 900 | 225 | 335 | 500 | 90        | 75        |
| 4"     | 100 | 70%       | 457 | 457       | 460   | 160 | 230 | 900 | 245 | 335 | 500 | 130       | 110       |



- Flanges in according with ASME B.16.5
- Buttwelding end in according with ANSI B.16.25
- Face to face dimensions according to API 6D spec.
- Valves in according to API 6D spec. API 599
- Dimensions are in mm.
- Estimated valve weight are in Kg.

| Quote (mm) senza indicazione di tolleranza grado di precisione medio: UNI-EN 22768-1   Dis. D.R.J. Date 10.01. | OENERGY.                            | Dv                 | vg. N         | ۱°             | VMD                  | -1    | 549      | 00          |         |
|--|-------------------------------------|--------------------|---------------|----------------|----------------------|-------|----------|-------------|---------|
| da   oltre   oltre   oltre   oltre   oltre   FORI:   App. D.R.   Date 12.01.                                   | VALVIS                              |                    |               |                |                      | Dis.  | D.R.J.   | Date 1      | 0.01.09 |
| Denomination   Draw A3   Scale   1:1   |                                     |                    |               |                |                      | Арр.  | D.R.     | Date 1      | 2.01.09 |
| UCITUIIIII   UITI  | Danomination                        | fino a fir<br>6 30 | no a fino a 1 | ino a fino a f | ino a<br>2000 ALBERI | Draw  | А3       | Scale       | 1:1     |
| Lubricated Plug Valve Inverted Type 10.1 Flus Flus Flus Flus Flus Flus Flus Flus                               | Lubricated Plug Valve Inverted Type | ±0.1 ±0            | 0.2 ± 0.3 ±   | ±0.5 ±0.8 ±    | 1.2   1011-          | Rev.  | 0 Fi     | rst Issu    | е       |
| I I I I I I I I I I I I I I I I I I I  |                                     |                    |               |                |                      | Full- | Filled P | ED Requ     | irement |
| Dn 1/2"-4" Class 900   | Dn 1/2 -4 Class 900                 |                    |               |                |                      |       |          |             |         |
|  |                                     |                    |               |                |                      |       |          |             |         |
| Component Overall Dimensions   | Component OVERALL DIMENSIONS        |                    |               |                |                      |       |          |             |         |
| Rev. Dis. Date App. Date Description Rewiew  |                                     | Rev.               | Dis.          | Date           | Арр.                 | Date  | Des      | scription R | ewiew   |

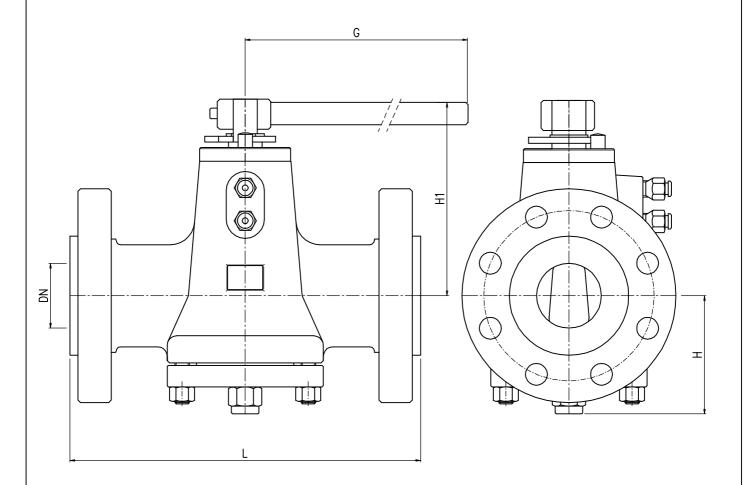
| NB     | DN  | Area | RF  | L<br>I WE | ı RTJ | Н   | H1  | G   | H2  | S   | W   | Wei<br>RF | ght<br>WE |
|--------|-----|------|-----|-----------|-------|-----|-----|-----|-----|-----|-----|-----------|-----------|
| 1/2"   | 15  | 70%  | 216 | _         | 216   | 90  | 110 | 400 | _   | _   | _   | 8         | _         |
| 3/4"   | 20  | 70%  | 229 | _         | 229   | 90  | 110 | 400 | _   | _   | _   | 9         | _         |
| 1"     | 25  | 70%  | 254 | _         | 254   | 90  | 110 | 400 | _   | _   | _   | 10        | _         |
| 1.1/2" | 40  | 70%  | 305 | _         | 305   | 105 | 120 | 500 | _   | _   | _   | 14        | _         |
| 2"     | 50  | 70%  | 368 | 368       | 372   | 120 | 155 | 900 | 165 | 220 | 300 | 50        | 35        |
| 3"     | 80  | 70%  | 470 | 470       | 473   | 140 | 210 | 900 | 225 | 335 | 500 | 100       | 85        |
| 4"     | 100 | 70%  | 546 | 546       | 549   | 160 | 230 | 900 | 245 | 335 | 500 | 180       | 160       |



- Flanges in according with ANSI B.16.5
- Buttwelding end in according with ANSI B.16.25
- Face to face dimensions according to API 6D spec.
- Valves in according to API 6D spec. API 599
- Dimensions are in mm.
- Estimated valve weight are in Kg.

#### VMD-1541500 Dwg. N° Quote (mm) senza indicazione di tolleranza grado di precisione medio: UNI-EN 22768-1 Dis. D.R.J. Date 10.01.09 App. D.R. Date 12.01.09 Draw A3 Scale Denomination Lubricated Plug Valve Inverted Type ±0.1 ±0.2 ±0.3 ±0.5 ±0.8 ±1.2 0 First Issue Rev. Full-Filled PED Requirement Dn 1/2"-4" Class 1500 Component OVERALL DIMENSIONS Rev. Dis. Date Description Rewiew Questo disegno è di proprietà di ENERGY VALVES è vietata qualsiasi riproduzione senza autorizzazione

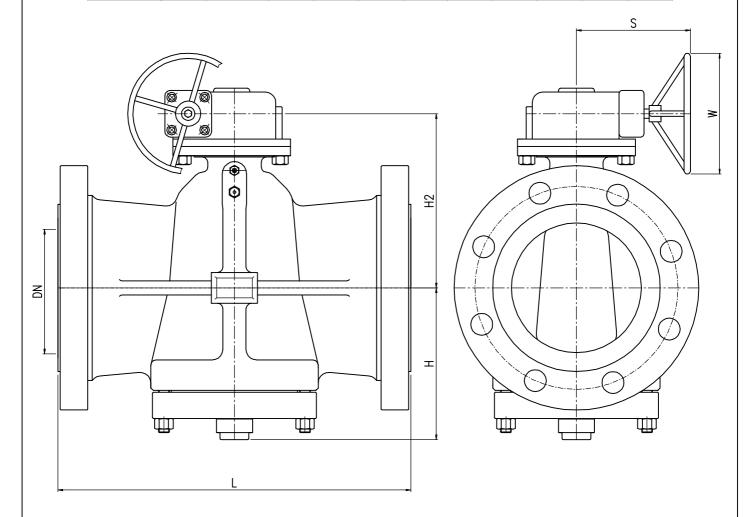
| NB | DN  | Port Area | RF  | L<br><sub>I</sub> WE | ı RTJ | Н   | H1  | G   | Wei | ght<br>WE |
|----|-----|-----------|-----|----------------------|-------|-----|-----|-----|-----|-----------|
| 2" | 50  | 70%       | 178 | 267                  | 191   | 90  | 155 | 600 | 20  | 18        |
| 3" | 80  | 70%       | 203 | 330                  | 216   | 140 | 210 | 600 | 35  | 30        |
| 4" | 100 | 70%       | 229 | 356                  | 241   | 160 | 230 | 600 | 55  | 50        |



- Flanges in according with ASME B.16.5
- Buttwelding end in according with ANSI B.16.25
- Face to face dimensions according to API 6D spec.
- Valves in according to API 6D spec. API 599
- Dimensions are in mm.
- Estimated valve weight are in Kg.

| OENERGY.   | Dw                 | /g. N        | 1°                            | VMD   | -2     | .415   | ,0          |         |
|--|--------------------|--------------|-------------------------------|---|--------|--|-------------|---------|
| VALVIS   |                    |              | dicazione di<br>nedio: UNI-EN |   | Dis.   | D.R.J.   | Date 1      | 0.01.09 |
|  |                    |              |                               |   | Арр.   | D.R.   | Date 1      | 2.01.09 |
| Nanomination   | fino a fin<br>6 30 | o a fino a f | ino a fino a f                | Poltre   FORI:<br>1000   Toll.+<br>1000   ALBERI:<br>11.2   Toll- | Draw   | A3   | Scale       | 1:1     |
| Denomination Lubricated Plug Valve Inverted Type                 | ±0.1 ±0            | .2 ±0.3 ±    | :0.5 ± 0.8 ±                  | 1.2   1011-   | Rev.   | 0 Fir  | rst Issu    | ıe      |
|  |                    |              |                               |   | Full-  | Filled Pf  | ED Requ     | irement |
| Dn 2"-4" Class 150   |                    |              |                               |   |        | <del>                                     </del> |             |         |
|  |                    |              |                               |   |        |  |             |         |
| Component Overall dimensions                                     |                    |              |                               |   |        |  |             |         |
|  | Rev.               | Dis.         | Date                          | Арр.  | Date   | Des  | scription R | ewiew   |
| Questo disegno è di proprietà di ENERGY VALVES è vietata qualsia | si rir             | rodu         | zione                         | SEDZA   | . auto | orizza   | azione      | ١       |

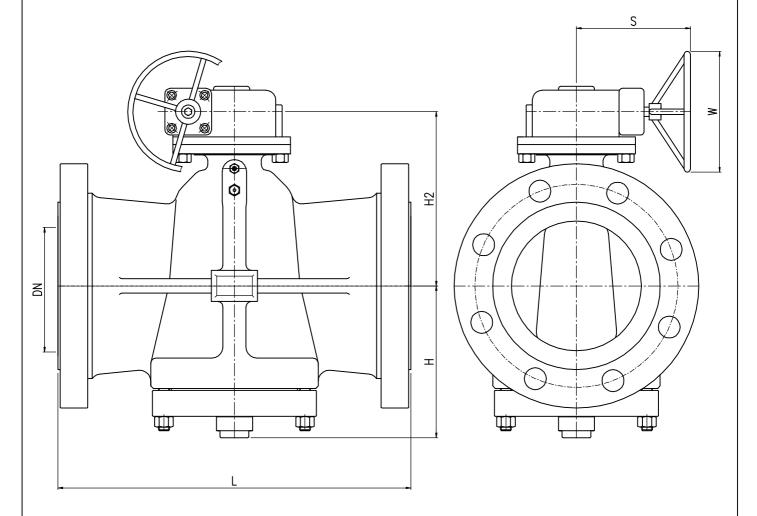
| NB  | DN  | Area | RF  | L<br>I WE | ı RTJ | H   | H2  | S   | W   | Wei<br>RF | ght<br>WE |
|-----|-----|------|-----|-----------|-------|-----|-----|-----|-----|-----------|-----------|
| 6"  | 150 | 40%  | 267 | 457       | 1     | 195 | 230 | 330 | 500 | 90        | 85        |
| 8"  | 200 | 40%  | 292 | 521       | 1     | 250 | 360 | 330 | 500 | 150       | 140       |
| 10" | 250 | 40%  | 330 | 559       | ı     | 310 | 480 | 330 | 500 | 210       | 190       |
| 12" | 300 | 40%  | 356 | 762       | _     | 360 | 530 | 345 | 700 | 280       | 270       |



- Flanges in according with ANSI B.16.5
- Buttwelding end in according with ANSI B.16.25
- Face to face dimensions according to API 6D spec.
- Valves in according to API 6D spec. API 599
- Dimensions are in mm.
- Estimated valve weight are in Kg.

#### VMD-612150 Dwg. N° Quote (mm) senza indicazione di tolleranza grado di precisione medio: UNI-EN 22768-1 Dis. D.R.J. Date 10.01.09 App. D.R. Date 12.01.09 Draw A3 Scale Denomination Lubricated Plug Valve Inverted Type ±0.1 ±0.2 ±0.3 ±0.5 ±0.8 ±1.2 O First Issue Rev. Full-Filled PED Requirement Short Pattern Dn 6"-12" Class 150 Component OVERALL DIMENSIONS Rev. Dis. Date Date Description Rewiew Questo disegno è di proprietà di ENERGY VALVES è vietata qualsiasi riproduzione senza autorizzazione

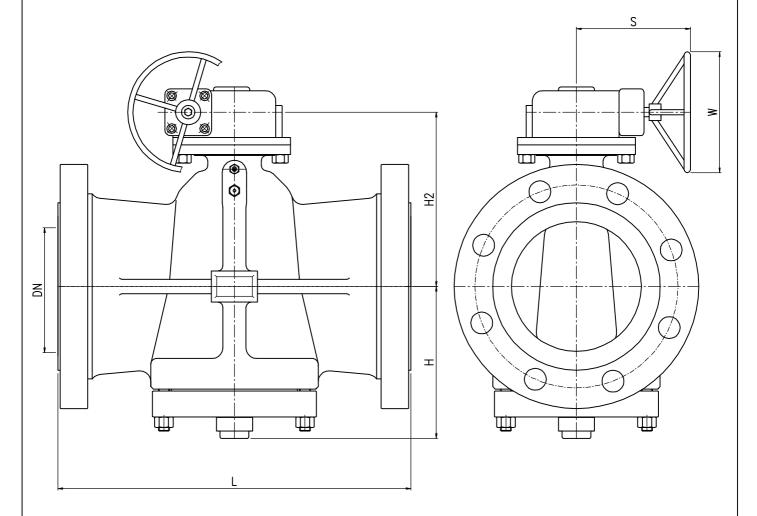
| NB  | DN  | Area | RF  | L<br><sub>I</sub> WE | ı RTJ | Н   | H2  | S   | W   | Wei | ght<br>WE |
|-----|-----|------|-----|----------------------|-------|-----|-----|-----|-----|-----|-----------|
| 6"  | 150 | 60%  | 403 | 457                  | _     | 220 | 290 | 330 | 500 | 130 | 100       |
| 8"  | 200 | 60%  | 502 | 521                  | _     | 300 | 344 | 320 | 500 | 170 | 150       |
| 10" | 250 | 60%  | 568 | 559                  | _     | 350 | 410 | 320 | 500 | 240 | 210       |
| 12" | 300 | 60%  | 711 | 241                  | _     | 360 | 400 | 345 | 700 | 330 | 300       |



- Flanges in according with ANSI B.16.5
- Buttwelding end in according with ANSI B.16.25
- Face to face dimensions according to API 6D spec.
- Valves in according to API 6D spec. API 599
- Dimensions are in mm.
- Estimated valve weight are in Kg.

#### VMD-612300R Dwg. N° Quote (mm) senza indicazione di tolleranza grado di precisione medio: UNI-EN 22768-1 Dis. D.R.J. Date 10.01.09 App. D.R. Date 12.01.09 Draw A3 Scale Denomination Lubricated Plug Valve Inverted Type ±0.1 ±0.2 ±0.3 ±0.5 ±0.8 ±1.2 O First Issue Rev. Full-Filled PED Requirement Regular Pattern Dn 6"-12" Class 300 Component OVERALL DIMENSIONS Rev. Dis. Date Date Description Rewiew Questo disegno è di proprietà di ENERGY VALVES è vietata qualsiasi riproduzione senza autorizzazione

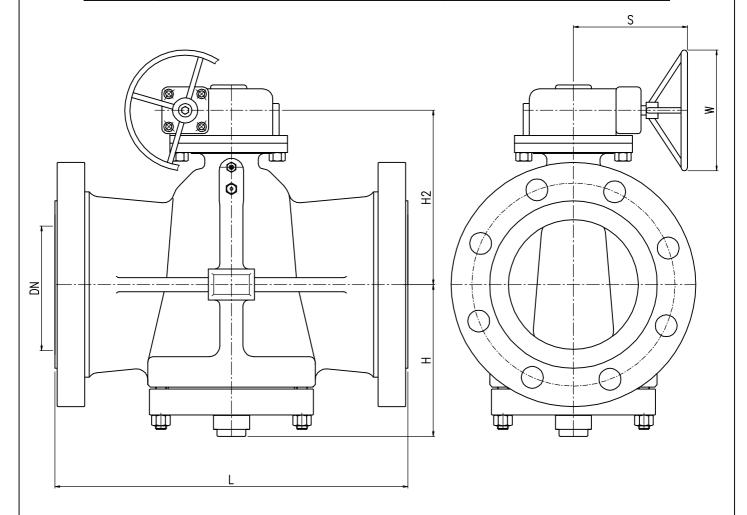
| NB  | DN  | Area | RF  | L<br>I WE | ı RTJ | Н   | H2  | S   | W   | Wei<br>RF | ght<br>WE |
|-----|-----|------|-----|-----------|-------|-----|-----|-----|-----|-----------|-----------|
| 6"  | 150 | 40%  | 403 | 457       | 419   | 200 | 260 | 330 | 500 | 130       | 100       |
| 8"  | 200 | 40%  | 419 | 521       | 435   | 210 | 310 | 320 | 500 | 170       | 150       |
| 10" | 250 | 40%  | 457 | 559       | 473   | 250 | 360 | 320 | 500 | 240       | 210       |
| 12" | 300 | 40%  | 502 | 635       | 520   | 280 | 390 | 345 | 700 | 330       | 300       |



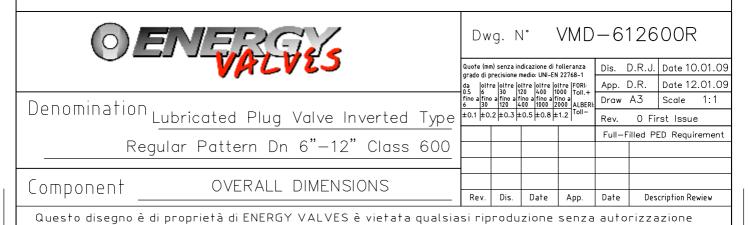
- Flanges in according with ANSI B.16.5
- Buttwelding end in according with ANSI B.16.25
- Face to face dimensions according to API 6D spec.
- Valves in according to API 6D spec. API 599
- Dimensions are in mm.
- Estimated valve weight are in Kg.

#### VMD-612300V Dwg. N° Quote (mm) senza indicazione di tolleranza grado di precisione medio: UNI-EN 22768-1 Dis. D.R.J. Date 10.01.09 App. D.R. Date 12.01.09 Draw A3 Scale Denomination Lubricated Plug Valve Inverted Type ±0.1 ±0.2 ±0.3 ±0.5 ±0.8 ±1.2 0 First Issue Rev. Full-Filled PED Requirement Venturi Pattern Dn 6"-12" Class 300 Component OVERALL DIMENSIONS Rev. Dis. Date Description Rewiew Questo disegno è di proprietà di ENERGY VALVES è vietata qualsiasi riproduzione senza autorizzazione

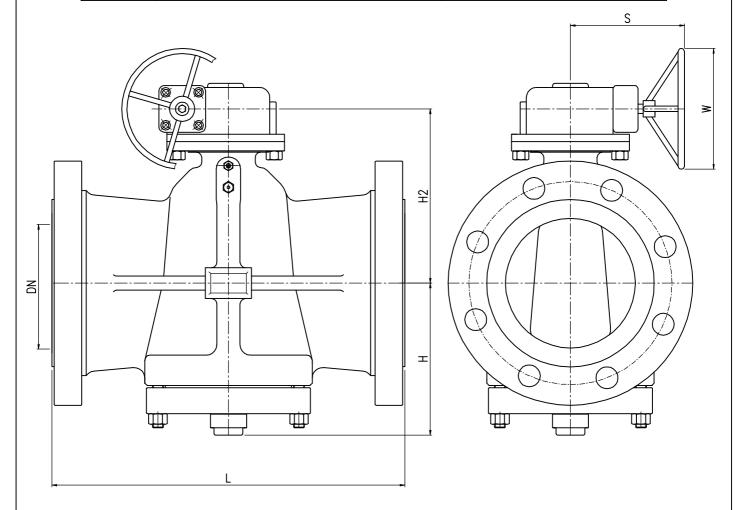
| NB  | DN  | Area | RF  | L<br>I WE | ı RTJ | Н   | H2  | S   | W   | Wei | ght<br>WE |
|-----|-----|------|-----|-----------|-------|-----|-----|-----|-----|-----|-----------|
| 6"  | 150 | 60%  | 559 | 559       | 562   | 250 | 460 | 330 | 500 | 160 | 150       |
| 8"  | 200 | 60%  | 660 | 660       | 664   | 300 | 520 | 320 | 700 | 280 | 220       |
| 10" | 250 | 60%  | 787 | 787       | 791   | 320 | 560 | 320 | 700 | 400 | 300       |
| 12" | 300 | 60%  | 838 | 838       | 841   | 380 | 600 | 345 | 700 | 560 | 420       |



- Flanges in according with ANSI B.16.5
- Buttwelding end in according with ANSI B.16.25
- Face to face dimensions according to API 6D spec.
- Valves in according to API 6D spec. API 599
- Dimensions are in mm.
- Estimated valve weight are in Kg.



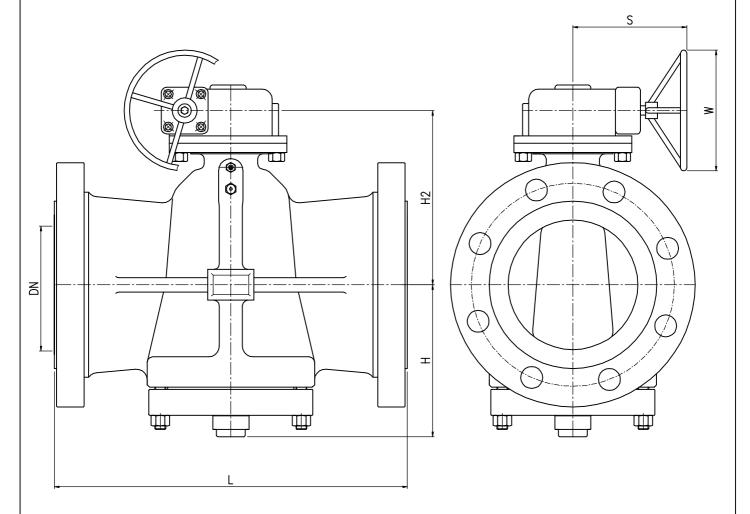
| NB  | DN  | Area | RF  | L<br>I WE | ı RTJ | Н   | H2  | S   | W   | Wei | ght<br>WE |
|-----|-----|------|-----|-----------|-------|-----|-----|-----|-----|-----|-----------|
| 6"  | 150 | 40%  | 559 | 559       | 562   | 250 | 460 | 330 | 500 | 160 | 150       |
| 8"  | 200 | 40%  | 660 | 660       | 664   | 300 | 520 | 320 | 700 | 280 | 220       |
| 10" | 250 | 40%  | 787 | 787       | 791   | 320 | 560 | 320 | 700 | 400 | 300       |
| 12" | 300 | 40%  | 838 | 838       | 841   | 380 | 600 | 345 | 700 | 560 | 420       |



- Flanges in according with ANSI B.16.5
- Buttwelding end in according with ANSI B.16.25
- Face to face dimensions according to API 6D spec.
- Valves in according to API 6D spec. API 599
- Dimensions are in mm.
- Estimated valve weight are in Kg.

#### VMD-612600V Dwg. N° Quote (mm) senza indicazione di tolleranza grado di precisione medio: UNI-EN 22768-1 Dis. D.R.J. Date 10.01.09 App. D.R. Date 12.01.09 Draw A3 Scale Denomination Lubricated Plug Valve Inverted Type ±0.1 ±0.2 ±0.3 ±0.5 ±0.8 ±1.2 0 First Issue Rev. Full-Filled PED Requirement Venturi Pattern Dn 6"-12" Class 600 Component OVERALL DIMENSIONS Rev. Dis. Date Description Rewiew Questo disegno è di proprietà di ENERGY VALVES è vietata qualsiasi riproduzione senza autorizzazione

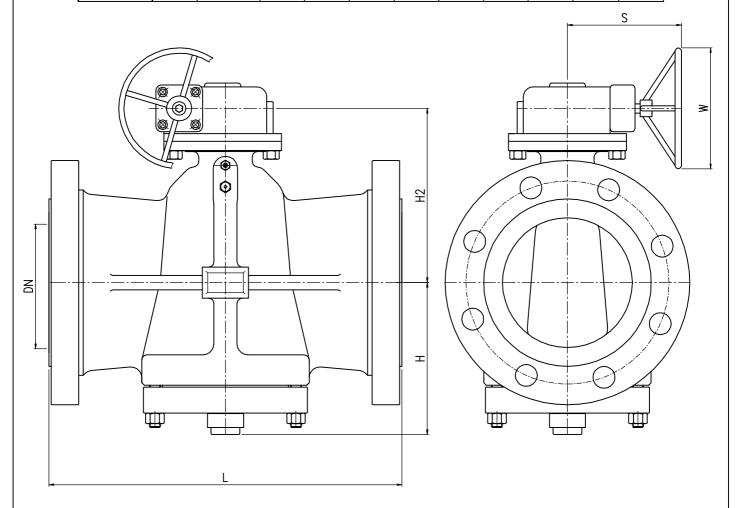
| NB  | DN  | Port Area | RF  | L<br>I WE | ı RTJ | Н   | H2  | S   | W   | Wei  | ght<br>WE |
|-----|-----|-----------|-----|-----------|-------|-----|-----|-----|-----|------|-----------|
| 6"  | 150 | 40%       | 610 | 610       | 613   | 270 | 530 | 330 | 700 | 250  | 180       |
| 8"  | 200 | 40%       | 737 | 737       | 740   | 310 | 550 | 320 | 700 | 450  | 300       |
| 10" | 250 | 40%       | 838 | 838       | 841   | 390 | 590 | 320 | 700 | 750  | 550       |
| 12" | 300 | 40%       | 965 | 965       | 968   | 420 | 630 | 345 | 700 | 1050 | 850       |



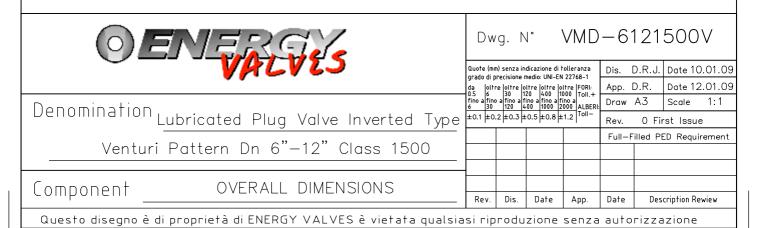
- Flanges in according with ASME B.16.5
- Buttwelding end in according with ANSI B.16.25
- Face to face dimensions according to API 6D spec.
- Valves in according to API 6D spec. API 599
- Dimensions are in mm.
- Estimated valve weight are in Kg.

| OENERGY.   | Dw              | /g. N        | ۱°                             | VMD   | -6    | 129      | 00\         | /       |
|--|-----------------|--------------|--------------------------------|---|-------|----------|-------------|---------|
| VALVIS   |                 |              | ndicazione di<br>medio: UNI-EN |   | Dis.  | D.R.J.   | Date 1      | 0.01.09 |
| • • •  |                 |              |                                |   | Арр.  | D.R.     | Date 1      | 2.01.09 |
| Danamination   | fino a fin<br>6 | o a fino a 1 | ino a fino a f                 | oltre<br>000<br>Toll.+<br>ino a<br>0000<br>ALBERI:<br>Toll- | Draw  | А3       | Scale       | 1:1     |
| Denomination Lubricated Plug Valve Inverted Type                 | ±0.1 ±0         | 0.2 ± 0.3 ±  | ±0.5 ±0.8 ±                    | :1.2  Toll-   | Rev.  | 0 Fi     | rst Issu    | е       |
|  |                 |              |                                |   | Full- | Filled P | ED Requ     | irement |
| Venturi Pattern Dn 6"-12" Class 900                              |                 |              |                                |   |       |          |             |         |
|  |                 |              |                                |   |       |          |             |         |
| Component Overall dimensions                                     |                 |              |                                |   |       |          |             |         |
|  | Rev.            | Dis.         | Date                           | Арр.  | Date  | Des      | scription R | ewiew   |
| Questo disegno è di proprietà di ENERGY VALVES è vietata qualsia | sirip           | rodu         | zione                          | senza   | aut   | orizza   | zione       |         |

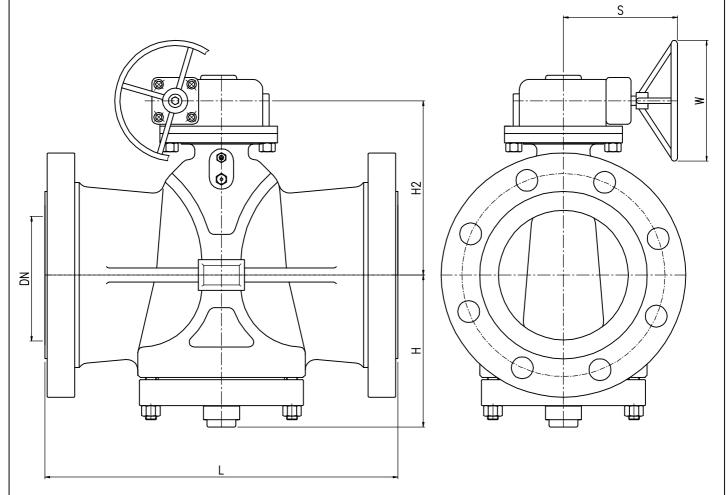
| NB  | DN  | Area | RF   | L<br>I WE | ı RTJ | Н   | H2  | S   | W   | Wei<br>RF | ght<br>WE |
|-----|-----|------|------|-----------|-------|-----|-----|-----|-----|-----------|-----------|
| 6"  | 150 | 40%  | 705  | 705       | 711   | 270 | 530 | 330 | 700 | 420       | 330       |
| 8"  | 200 | 40%  | 832  | 832       | 841   | 310 | 550 | 320 | 700 | 730       | 550       |
| 10" | 250 | 40%  | 991  | 991       | 1000  | 390 | 590 | 320 | 700 | 1160      | 950       |
| 12" | 300 | 40%  | 1130 | 1130      | 1146  | 420 | 630 | 345 | 700 | 1880      | 1520      |



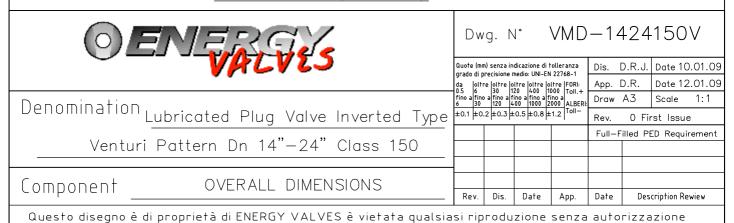
- Flanges in according with ANSI B.16.5
- Buttwelding end in according with ANSI B.16.25
- Face to face dimensions according to API 6D spec.
- Valves in according to API 6D spec. API 599
- Dimensions are in mm.
- Estimated valve weight are in Kg.



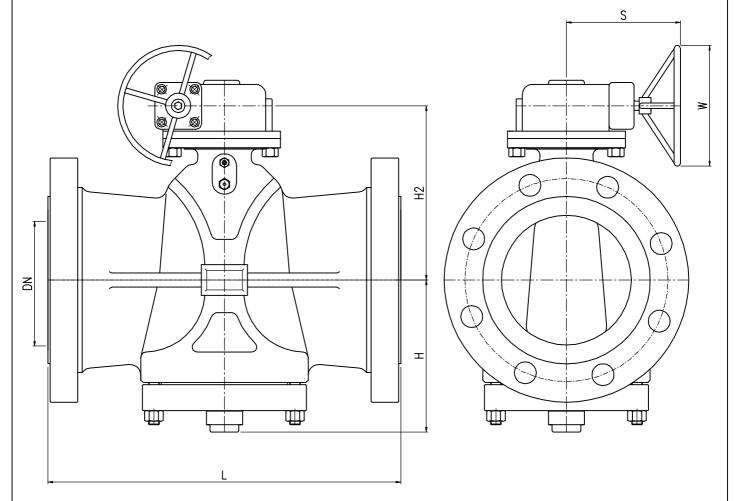
| NB  | DN  | Area | RF   | L<br>I WE | ı RTJ | Н   | H2  | S   | W   | Wei  | ght<br>WE |
|-----|-----|------|------|-----------|-------|-----|-----|-----|-----|------|-----------|
| 14" | 350 | 40%  | 686  | 686       | 699   | 370 | 560 | 345 | 700 | 410  | 350       |
| 16" | 400 | 40%  | 762  | 762       | 775   | 385 | 590 | 345 | 700 | 510  | 490       |
| 18" | 450 | 40%  | 864  | 864       | 876   | 400 | 620 | 450 | 700 | 770  | 700       |
| 20" | 500 | 40%  | 914  | 914       | 927   | 450 | 650 | 450 | 700 | 1050 | 950       |
| 24" | 600 | 40%  | 1067 | 1067      | 1080  | 500 | 680 | 545 | 700 | 1750 | 1600      |



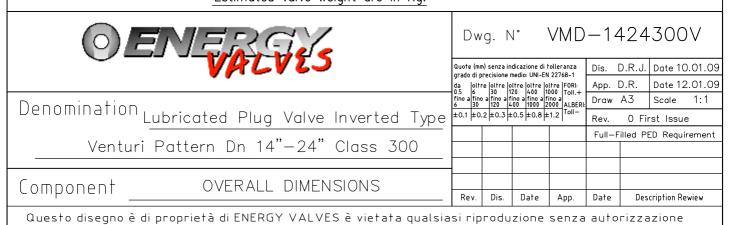
- Flanges in according with ANSI B.16.5
- Buttwelding end in according with ANSI B.16.25
- Face to face dimensions according to API 6D spec.
- Valves in according to API 6D spec. API 599
- Dimensions are in mm.
- Estimated valve weight are in Kg.



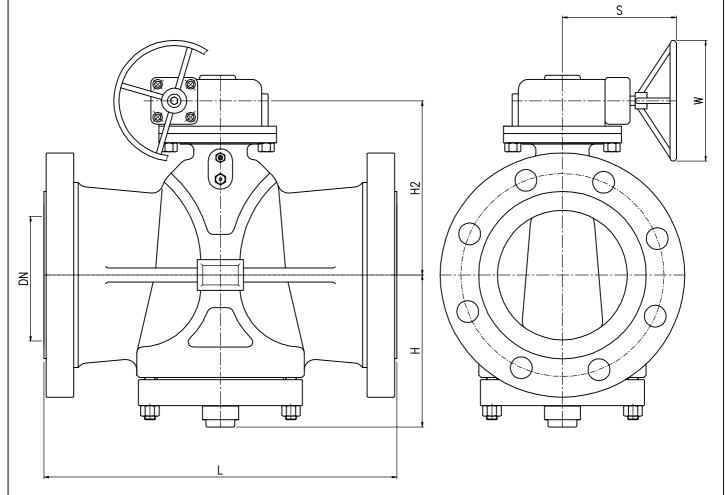
| NB  | DN  | Area | RF   | L<br>I WE | ı RTJ | Н   | H2  | S   | W   | Wei  | ght<br>WE |
|-----|-----|------|------|-----------|-------|-----|-----|-----|-----|------|-----------|
| 14" | 350 | 40%  | 762  | 762       | 778   | 370 | 560 | 345 | 700 | 510  | 430       |
| 16" | 400 | 40%  | 838  | 838       | 854   | 385 | 590 | 345 | 700 | 670  | 590       |
| 18" | 450 | 40%  | 914  | 914       | 930   | 400 | 620 | 450 | 700 | 920  | 800       |
| 20" | 500 | 40%  | 991  | 991       | 1010  | 450 | 650 | 450 | 700 | 1250 | 1150      |
| 24" | 600 | 40%  | 1143 | 1143      | 1165  | 500 | 680 | 545 | 700 | 2100 | 1850      |



- Flanges in according with ANSI B.16.5
- Buttwelding end in according with ANSI B.16.25
- Face to face dimensions according to API 6D spec.
- Valves in according to API 6D spec. API 599
- Dimensions are in mm.
- Estimated valve weight are in Kg.



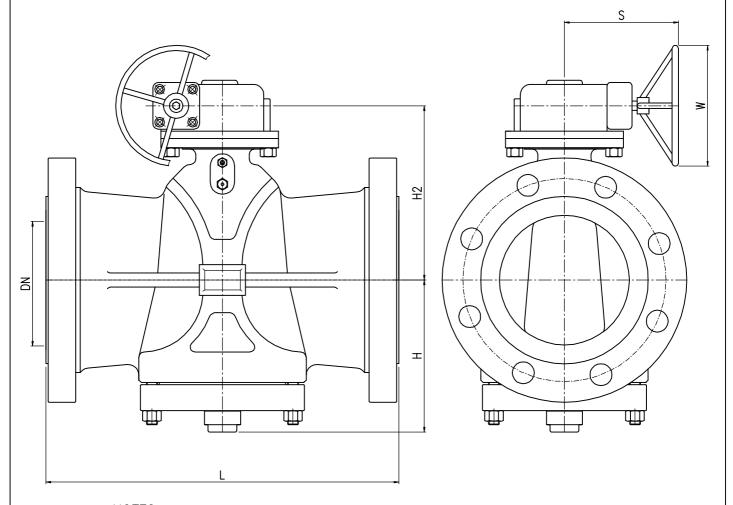
| NB  | DN  | Area | RF   | L<br>I WE | ı RTJ | Н   | H2  | S   | W   | Wei  | ght<br>WE |
|-----|-----|------|------|-----------|-------|-----|-----|-----|-----|------|-----------|
| 14" | 350 | 40%  | 889  | 889       | 892   | 370 | 560 | 345 | 700 | 720  | 590       |
| 16" | 400 | 40%  | 991  | 991       | 994   | 385 | 590 | 450 | 700 | 1120 | 730       |
| 18" | 450 | 40%  | 1092 | 1092      | 1095  | 400 | 620 | 450 | 700 | 1450 | 1100      |
| 20" | 500 | 40%  | 1194 | 1194      | 1200  | 450 | 650 | 545 | 700 | 2050 | 1440      |
| 24" | 600 | 40%  | 1397 | 1397      | 1407  | 500 | 680 | 545 | 700 | 3500 | 2450      |



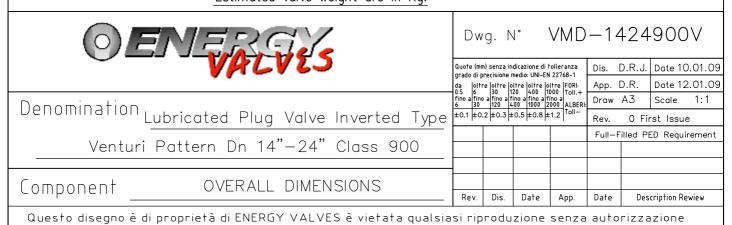
- Flanges in according with ANSI B.16.5
- Buttwelding end in according with ANSI B.16.25
- Face to face dimensions according to API 6D spec.
- Valves in according to API 6D spec. API 599
- Dimensions are in mm.
- Estimated valve weight are in Kg.

#### VMD-1424600V Dwg. N° Quote (mm) senza indicazione di tolleranza grado di precisione medio: UNI-EN 22768-1 Dis. D.R.J. Date 10.01.09 App. D.R. Date 12.01.09 Draw A3 Scale Denomination Lubricated Plug Valve Inverted Type ±0.1 ±0.2 ±0.3 ±0.5 ±0.8 ±1.2 0 First Issue Rev. Full-Filled PED Requirement Venturi Pattern Dn 14"-24" Class 600 Component OVERALL DIMENSIONS Rev. Dis. Date Description Rewiew Questo disegno è di proprietà di ENERGY VALVES è vietata qualsiasi riproduzione senza autorizzazione

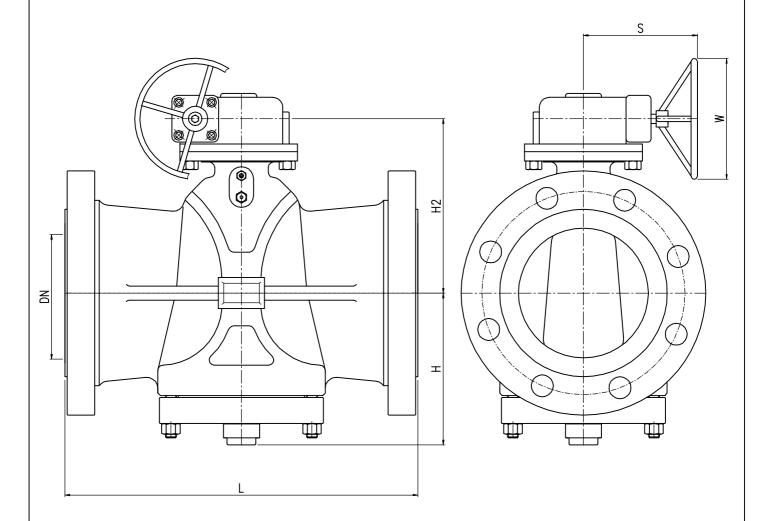
| NB  | DN  | Area | RF   | L<br>I WE | ı RTJ | Н   | H2  | S   | W   | Wei  | ght<br>WE |
|-----|-----|------|------|-----------|-------|-----|-----|-----|-----|------|-----------|
| 14" | 350 | 40%  | 1029 | 1029      | 1038  | 370 | 560 | 450 | 700 | 1350 | 1150      |
| 16" | 400 | 40%  | 1130 | 1130      | 1140  | 385 | 590 | 450 | 700 | 1680 | 1400      |
| 18" | 450 | 40%  | 1219 | 1219      | 1232  | 400 | 620 | 545 | 700 | 2650 | 2100      |
| 20" | 500 | 40%  | 1321 | 1321      | 1334  | 450 | 650 | 545 | 700 | 3850 | 2750      |
| 24" | 600 | 40%  | 1549 | 1549      | 1568  | 500 | 680 | 545 | 700 | 6750 | 4750      |



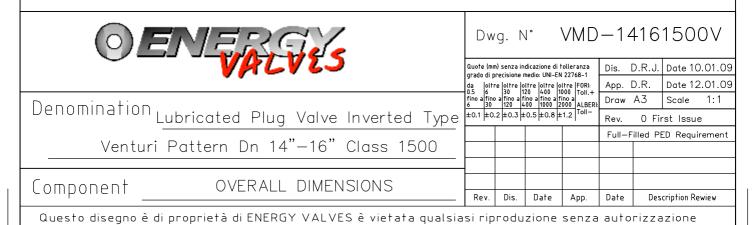
- Flanges in according with ANSI B.16.5
- Buttwelding end in according with ANSI B.16.25
- Face to face dimensions according to API 6D spec.
- Valves in according to API 6D spec. API 599
- Dimensions are in mm.
- Estimated valve weight are in Kg.

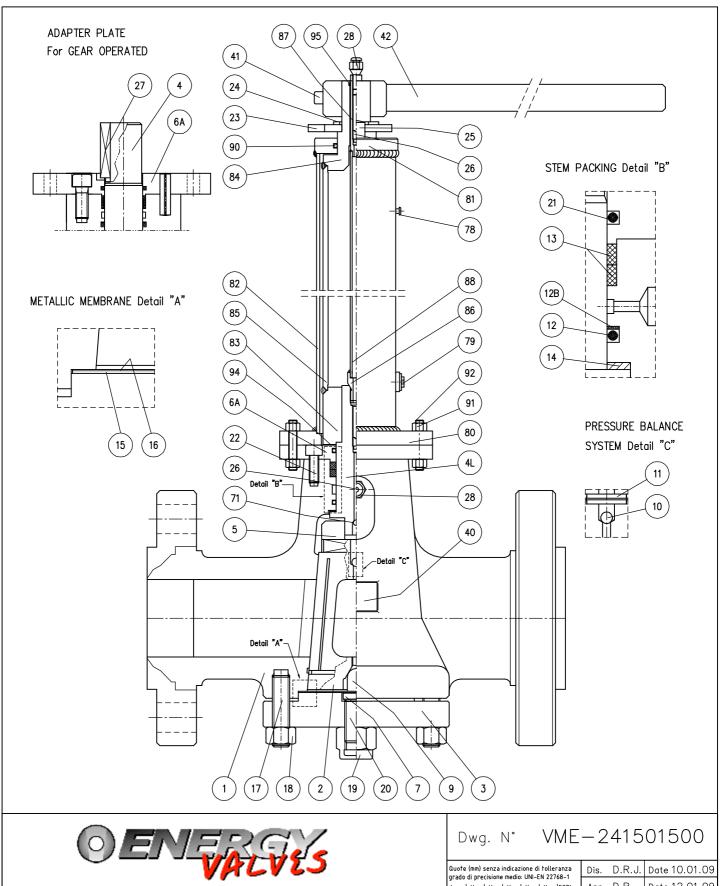


| NB  | DN  | Area | RF   | L<br><sub>I</sub> WE | ı RTJ | Н   | H2  | S   | W   | Wei<br>RF | ght<br>WE |
|-----|-----|------|------|----------------------|-------|-----|-----|-----|-----|-----------|-----------|
| 14" | 350 | 40%  | 1257 | 1257                 | 1276  | 370 | 560 | 450 | 700 | 2700      | 2100      |
| 16" | 400 | 40%  | 1384 | 1384                 | 1407  | 385 | 590 | 450 | 700 | 3800      | 2850      |



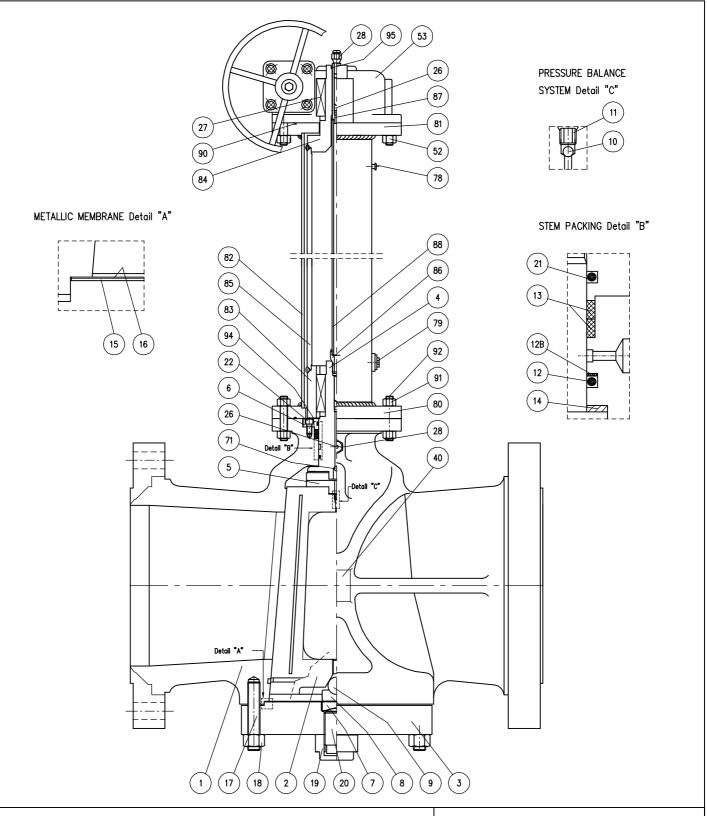
- Flanges in according with ANSI B.16.5
- Buttwelding end in according with ANSI B.16.25
- Face to face dimensions according to API 6D spec.
- Valves in according to API 6D spec. API 599
- Dimensions are in mm.
- Estimated valve weight are in Kg.





## Denomination Lubricated Plug Valve Inverted Type Extension — Dn 2"—4" Class 150 — 1500 Component ASSEMBLY DRAWING

|   |            | .,        | ndicazione di<br>medio: UNI-E |                        | Dis.  | D.R.J.    | Date 10 | 0.01.09 |
|---|------------|-----------|-------------------------------|------------------------|-------|-----------|---------|---------|
|   | ' ۱        | re  oltre | oltre  oltre                  |                        | Арр.  | D.R.      | Date 12 | 2.01.09 |
|   | fino a fin | a fino a  | fino a fino a<br>400 1000     | fino a<br>2000 ALBERI: | Draw  | А3        | Scale   | 1:1     |
|   | ±0.1 ±0    | .2 ±0.3   | ±0.5 ±0.8                     | ±1.2 Toll−             | Rev.  | 0 Fir     | st Issu | е       |
|   |            |           |                               |                        | Full- | Filled PE | D Requi | irement |
|   |            |           |                               |                        |       |           |         |         |
| _ |            |           |                               |                        |       |           |         |         |
|   |            |           |                               |                        |       |           |         |         |
|   |            |           |                               |                        |       |           |         |         |



## OENERGY S

Denomination Lubricated Plug Valve Inverted Type
Extension - Dn 6"-24" Class 150 - 1500

Component ASSEMBLY DRAWING

#### Dwg. N° VME-6241501500

|   |             |     | ) senza i       |               |                |                |         | Dis.  | D.R.J.   | Date 10     | .01.09 |
|---|-------------|-----|-----------------|---------------|----------------|----------------|---------|-------|----------|-------------|--------|
|   | -           |     | e  oltre        |               | oltre          | oltre          |         | Арр.  | D.R.     | Date 12     | .01.09 |
|   | fino a<br>6 | 30  | a fino a<br>120 | fino a<br>400 | fino a<br>1000 | fino a<br>2000 | ALBERI: | Draw  | А3       | Scale       | 1:1    |
| : | ±0.1        | ±0. | 2 ±0.3          | ±0.5          | ±0.8           | ±1.2           | Toll-   | Rev.  | 0 Fir    | st Issue    | ;      |
|   |             |     |                 |               |                |                |         | Full- | Filled P | ED Requir   | ement  |
|   |             |     |                 |               |                |                |         |       |          |             |        |
|   |             |     |                 |               |                |                |         |       |          |             |        |
|   |             |     |                 |               |                |                |         |       |          |             |        |
|   | Re          | ٧.  | Dis.            | D             | ate            | Д              | рр.     | Date  | Des      | cription Re | wiew   |
|   |             |     |                 |               |                |                |         |       |          |             |        |

SERVICE: TEMPERATURE: -20 °C + 160°C STANDARD FLUID - CARBON STEEL TRIM - FIRE SAFE DESIGN

| PART.N° | DESCRIPTION           | MATERIAL       | NOTE                 |
|---------|-----------------------|----------------|----------------------|
| 01      | BODY                  | ASTM A 216 WCB |                      |
| 02      | PLUG                  | ASTM A 105     | Super LOMU Treatment |
| 03      | COVER                 | ASTM A 105     |                      |
| 04L     | LEVER STEM            | AISI 4140      |                      |
| 05      | EQUALIZER RING        | AISI 4140      |                      |
| 06      | GLAND PLATE           | ASTM A 105     |                      |
| 06A     | ADAPTER PLATE         | ASTM A 105     |                      |
| 07      | THRUST BUTTON         | AISI 1040      |                      |
| 08      | LOWER BEARING PAD     | AISI 4140      |                      |
| 09      | BALL                  | AISI 4140      |                      |
| 10      | BALL PRESSURE BALANCE | AISI 302       |                      |
| 11      | PIN                   | C100           |                      |
| 12      | STEM O-RING           | VITON          |                      |
| 12B     | STEM BACK-UP RING     | NYLON          | For Class 900 - 1500 |
| 13      | PACKING               | GRAPHITE       |                      |
| 14      | THRUST BEARING        | AISI 304/PTFE  |                      |
| 15      | LOWER DIAPHRAGM       | Fe 360 B       |                      |
| 16      | UPPER DIAPHRAGM       | AISI 304       |                      |
| 17      | BODY STUDS            | ASTM A 193 B7  |                      |
| 18      | BODY NUTS             | ASTM A 194 2H  |                      |
| 19      | SCREW CAP             | Class 5S       |                      |
| 20      | ADJUSTING SCREW       | AISI 1040      |                      |
| 21      | GLAND PLATE O-RING    | NITRILE        |                      |
| 22      | GLAND PLATE CAP-SCREW | Class 8.8      |                      |
| 26      | CHECK VALVE           | AISI 304       |                      |
| 27      | STEM KEY              | AISI 4140      |                      |
| 28      | GREASE FITTING        | AISI 304       |                      |
| 40      | NAME PLATE            | AISI 304       |                      |
| 41      | LEVER SCREW           | Class 8.8      |                      |
| 42      | WRENCH                | Fe 510 B       |                      |
| 71      | BALL                  | AISI 304       |                      |
| 78      | VENT PLUG             | AISI 304       |                      |
| 79      | PLUG DRAIN            | AISI 304       |                      |
| 80      | LOWER FLANGE          | Fe 510         |                      |
| 81      | UPPER FLANGE          | Fe 510         |                      |
| 82      | YOKE PIPE             | API 5L Gr.B    |                      |
| 83      | DRIVE SLEEVE          | Fe 510         |                      |
| 84      | DRIVE SPUD            | AISI 4140      |                      |
| 85      | DRIVE PIPE            | API 5L Gr.B    |                      |
| 86      | GREASE FITTING NIPPLE | ASTM A 105     |                      |
| 87      | GREASE FITTING SLEEVE | ASTM A 105     |                      |
| 88      | GREASE PIPE           | API 5L Gr.B    |                      |
| 90      | FLANGE O-RING         | NITRILE        |                      |
| 91      | EXTENSION NUTS        | ASTM A 193 B7  |                      |
| 92      | EXTENSION STUDS       | ASTM A 194 2H  |                      |
| 94      | THRUST WASHER         | NYLON          |                      |
| 95      | O-RING                | NITRILE        |                      |
|         |                       |                | •                    |

| O ENERGY |
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Dwg. N° VMEB0-241501500

|             | Quote (mm) senza indicazione di tolleranza<br>grado di precisione medio: UNI-EN 22768-1 |                 |               |                |                |         |       | D.R.J.   | Date 10     | .01.09 |
|-------------|---|-----------------|---------------|----------------|----------------|---------|-------|----------|-------------|--------|
| da          |   | oltre           | loitre        | oltre          | oltre          | FORI:   | Арр.  | D.R.     | Date 12     | .01.09 |
| fino a<br>6 | fino<br>30  | a fino a<br>120 | fino a<br>400 | fino a<br>1000 | fino a<br>2000 | ALBERI: | Draw  | А3       | Scale       | 1:1    |
| ±0.1        | ±0.:  | 2 ±0.3          | ±0.5          | ±0.8           | ±1.2           | Toll-   | Rev.  | 0 Fir    | st Issue    |        |
|             |   |                 |               |                |                |         | Full- | Filled P | ED Requir   | ement  |
|             |   |                 |               |                |                |         |       |          |             |        |
|             |   |                 |               |                |                |         |       |          |             |        |
|             |   |                 |               |                |                |         |       |          |             |        |
| Re          | ٧.  | Dis.            | D             | ate            | 1              | Арр.    | Date  | Des      | cription Re | wiew   |

Denomination Lubricated Plug Valve Inverted Type Extension Dn 2"-4" Class 150 - 1500

Extension bit 2 1 eldes 100 10

Component BILL OF MATERIAL

SERVICE: TEMPERATURE: -20 °C + 160°C STANDARD FLUID - CARBON STEEL TRIM - FIRE SAFE DESIGN

| PART.N° | DESCRIPTION           | MATERIAL       | NOTE                 |
|---------|-----------------------|----------------|----------------------|
| 01      | BODY                  | ASTM A 216 WCB |                      |
| 02      | PLUG                  | ASTM A 105     | Super LOMU Treatment |
| 03      | COVER                 | ASTM A 105     |                      |
| 04L     | LEVER STEM            | AISI 4140      |                      |
| 05      | EQUALIZER RING        | AISI 4140      |                      |
| 06      | GLAND PLATE           | ASTM A 105     |                      |
| 06A     | ADAPTER PLATE         | ASTM A 105     |                      |
| 07      | THRUST BUTTON         | AISI 1040      |                      |
| 08      | LOWER BEARING PAD     | AISI 4140      |                      |
| 09      | BALL                  | AISI 4140      |                      |
| 10      | BALL PRESSURE BALANCE | AISI 302       |                      |
| 11      | PIN                   | C100           |                      |
| 12      | STEM O-RING           | VITON          |                      |
| 12B     | STEM BACK-UP RING     | NYLON          | For Class 900 - 1500 |
| 13      | PACKING               | GRAPHITE       |                      |
| 14      | THRUST BEARING        | AISI 304/PTFE  |                      |
| 15      | LOWER DIAPHRAGM       | Fe 360 B       |                      |
| 16      | UPPER DIAPHRAGM       | AISI 304       |                      |
| 17      | BODY STUDS            | ASTM A 193 B7  |                      |
| 18      | BODY NUTS             | ASTM A 194 2H  |                      |
| 19      | SCREW CAP             | Class 5S       |                      |
| 20      | ADJUSTING SCREW       | AISI 1040      |                      |
| 21      | GLAND PLATE O-RING    | NITRILE        |                      |
| 22      | GLAND PLATE CAP-SCREW | Class 8.8      |                      |
| 26      | CHECK VALVE           | AISI 304       |                      |
| 27      | STEM KEY              | AISI 4140      |                      |
| 28      | GREASE FITTING        | AISI 304       |                      |
| 40      | NAME PLATE            | AISI 304       |                      |
| 41      | LEVER SCREW           | Class 8.8      |                      |
| 42      | WRENCH                | Fe 510 B       |                      |
| 71      | BALL                  | AISI 304       |                      |
| 78      | VENT PLUG             | AISI 304       |                      |
| 79      | PLUG DRAIN            | AISI 304       |                      |
| 80      | LOWER FLANGE          | Fe 510         |                      |
| 81      | UPPER FLANGE          | Fe 510         |                      |
| 82      | YOKE PIPE             | API 5L Gr.B    |                      |
| 83      | DRIVE SLEEVE          | Fe 510         |                      |
| 84      | DRIVE SPUD            | AISI 4140      |                      |
| 85      | DRIVE PIPE            | API 5L Gr.B    |                      |
| 86      | GREASE FITTING NIPPLE | ASTM A 105     |                      |
| 87      | GREASE FITTING SLEEVE | ASTM A 105     |                      |
| 88      | GREASE PIPE           | API 5L Gr.B    |                      |
| 90      | FLANGE O-RING         | NITRILE        |                      |
| 91      | EXTENSION NUTS        | ASTM A 193 B7  |                      |
| 92      | EXTENSION STUDS       | ASTM A 194 2H  |                      |
| 94      | THRUST WASHER         | NYLON          |                      |
| 95      | O-RING                | NITRILE        |                      |
|         |                       |                | •                    |

| O ENEVES |
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Dwg. N°VMEB0-6241501500

Oute (mm) senza indicazione di tolleranza grado di precisione medio: UNI-EN 22768-1 da lottre lottre

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