

# RAILWAY HOSES

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The complete range for railway applications



**We feel better under pressure**

The Railway Vitillo range meets all the requirements of the **EN45545-2** standard, the new European standard for the railway sector. Our hoses cover all major rail applications such as high-speed trains (also sleeping-car trains), regional and local trains, metro and trams, industrial transportation trains.

Thanks to the several hoses families homologated for railway applications (**1SN RW - 2SN RW - Premier ONE RW - Premier RW - 2TE RW - 3TE RW**), we can meet all the needs both for low and high pressure, also for applications in very tight spaces.

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**EN45545-2** replace all the European National standards  
(Italian UNI CEI 11170-3 - British BS6853 - French NF F 16-101 - German DIN 5510 and others)

RAILWAY HOSES

| Hose size                                                                         | Outside diameter                                                                  | Max working pressure                                                              | Min burst pressure                                                                | Min bend radius                                                                   |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|  |  |  |  |  |
| D.N. Inch                                                                         | Inch mm                                                                           | PSI Bar                                                                           | PSI Bar                                                                           | Inch mm                                                                           |

|                                                                                  |       |              |       |                                                                                   |    |            |     |                     |     |
|----------------------------------------------------------------------------------|-------|--------------|-------|-----------------------------------------------------------------------------------|----|------------|-----|---------------------|-----|
|  |       | TEKNO 1SN RW |       |  |    | EN 45545-2 |     | EN 853 SAE 100 R1AT |     |
| 25                                                                               | 1"    | 1,39         | 35,30 | 1270                                                                              | 88 | 5080       | 352 | 11,81               | 300 |
| 31                                                                               | 1"1/4 | 1,69         | 42,90 | 910                                                                               | 63 | 3620       | 252 | 16,54               | 420 |
| 38                                                                               | 1"1/2 | 1,97         | 50,10 | 720                                                                               | 50 | 2880       | 200 | 19,69               | 500 |
| 51                                                                               | 2"    | 52,50        | 63,40 | 580                                                                               | 40 | 2320       | 160 | 24,80               | 630 |

|                                                                                  |        |              |       |                                                                                   |     |            |      |                     |     |
|----------------------------------------------------------------------------------|--------|--------------|-------|-----------------------------------------------------------------------------------|-----|------------|------|---------------------|-----|
|  |        | TEKNO 2SN RW |       |  |     | EN 45545-2 |      | EN 853 SAE 100 R2AT |     |
| 6                                                                                | 1/4"   | 0,57         | 14,60 | 5800                                                                              | 400 | 23200      | 1600 | 3,94                | 100 |
| 8                                                                                | 5/16"  | 0,64         | 16,30 | 5070                                                                              | 350 | 20280      | 1400 | 4,53                | 115 |
| 10                                                                               | 3/8"   | 0,75         | 19,00 | 4780                                                                              | 330 | 19120      | 1320 | 5,12                | 130 |
| 12                                                                               | 1/2"   | 0,87         | 22,20 | 3980                                                                              | 275 | 15920      | 1100 | 7,09                | 180 |
| 16                                                                               | 5/8"   | 0,98         | 25,00 | 3620                                                                              | 250 | 14480      | 1000 | 7,87                | 200 |
| 19                                                                               | 3/4"   | 1,15         | 29,20 | 3110                                                                              | 215 | 12440      | 860  | 9,45                | 240 |
| 25                                                                               | 1"     | 1,46         | 37,10 | 2390                                                                              | 165 | 9560       | 660  | 11,81               | 300 |
| 31                                                                               | 1"1/4" | 1,84         | 46,70 | 1810                                                                              | 125 | 7240       | 500  | 16,54               | 420 |
| 38                                                                               | 1"1/2  | 2,12         | 53,80 | 1450                                                                              | 100 | 5800       | 400  | 19,69               | 500 |
| 51                                                                               | 2"     | 2,62         | 66,50 | 1300                                                                              | 90  | 5220       | 360  | 24,80               | 630 |

|                                                                                    |        |              |       |                                                                                     |    |            |     |                         |     |
|------------------------------------------------------------------------------------|--------|--------------|-------|-------------------------------------------------------------------------------------|----|------------|-----|-------------------------|-----|
|  |        | TEKNO 2TE RW |       |  |    | EN 45545-2 |     | EN 854-2TE ISO 4079-2TE |     |
| 6                                                                                  | 1/4"   | 0,52         | 13,10 | 1088                                                                                | 75 | 4350       | 300 | 1,57                    | 40  |
| 8                                                                                  | 5/16"  | 0,58         | 14,80 | 986                                                                                 | 68 | 3944       | 272 | 1,97                    | 50  |
| 10                                                                                 | 3/8"   | 0,65         | 16,40 | 914                                                                                 | 63 | 3654       | 252 | 2,36                    | 60  |
| 12                                                                                 | 1/2"   | 0,79         | 20,00 | 841                                                                                 | 58 | 3364       | 232 | 2,75                    | 70  |
| 16                                                                                 | 5/8"   | 0,96         | 24,40 | 725                                                                                 | 50 | 2900       | 200 | 3,54                    | 90  |
| 19                                                                                 | 3/4"   | 1,08         | 27,30 | 653                                                                                 | 45 | 2610       | 180 | 4,33                    | 110 |
| 25                                                                                 | 1"     | 1,36         | 34,60 | 580                                                                                 | 40 | 2320       | 160 | 5,90                    | 150 |
| 31                                                                                 | 1"1/4" | 1,61         | 41,00 | 508                                                                                 | 35 | 2030       | 140 | 6,69                    | 170 |

|                                                                                    |       |              |       |                                                                                     |    |            |     |                         |     |
|------------------------------------------------------------------------------------|-------|--------------|-------|-------------------------------------------------------------------------------------|----|------------|-----|-------------------------|-----|
|  |       | TEKNO 3TE RW |       |  |    | EN 45545-2 |     | EN 854-3TE ISO 4079-3TE |     |
| 31                                                                                 | 1"1/4 | 1,70         | 43,30 | 653                                                                                 | 45 | 2610       | 180 | 7,47                    | 190 |

Qualified Fluids:

Petroleum and water-glicol based fluids, lubricating oils and water

Operating temperature range:

-40°C/+100°C (-40°F to +212°F)

Features:



Tube:

Oil resistant synthetic rubber

Reinforcement:

1SN RW - Premier One RW

1 high tensile steel braid

2SN RW - Premier RW

2 high tensile steel braids

2 TE RW

1 high tensile textile braid

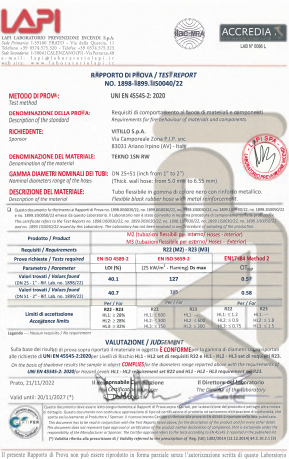
3 TE RW

2 high tensile textile braids

Cover:

Black fire-retardant synthetic rubber cover

Certificates:



RAILWAY HOSES

| Hose size                                                                         | Outside diameter                                                                  | Max working pressure                                                              | Min burst pressure                                                                | Min bend radius                                                                   |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|  |  |  |  |  |
| D.N. Inch                                                                         | Inch mm                                                                           | PSI Bar                                                                           | PSI Bar                                                                           | Inch mm                                                                           |

| Vitillo |        | PREMIER ONE RW |       | EN 45545-2 ISO 15540 |     | EXC. EN857 240 Bar |      | ISO 11237 24 MPa |     |
|---------|--------|----------------|-------|----------------------|-----|--------------------|------|------------------|-----|
| 6       | 1 1/4" | 0,48           | 12,20 | 4200                 | 290 | 16800              | 1160 | 1,57             | 40  |
| 8       | 5/16"  | 0,52           | 13,20 | 3900                 | 270 | 15600              | 1080 | 1,97             | 50  |
| 10      | 3/8"   | 0,61           | 15,60 | 3800                 | 260 | 15080              | 1040 | 2,36             | 60  |
| 12      | 1/2"   | 0,76           | 19,30 | 3500                 | 240 | 13900              | 960  | 2,76             | 70  |
| 16      | 5/8"   | 0,88           | 22,44 | 3000                 | 210 | 12100              | 840  | 3,35             | 85  |
| 19      | 3/4"   | 1,04           | 26,50 | 2460                 | 170 | 9860               | 680  | 3,94             | 100 |
| 25      | 1"     | 1,33           | 33,80 | 1960                 | 135 | 7800               | 540  | 5,51             | 140 |

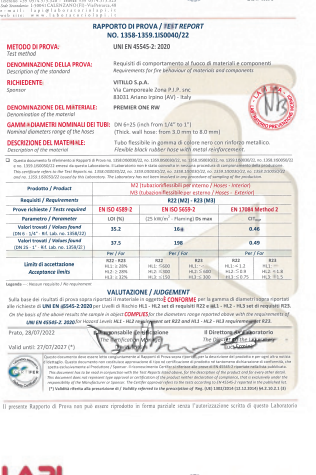
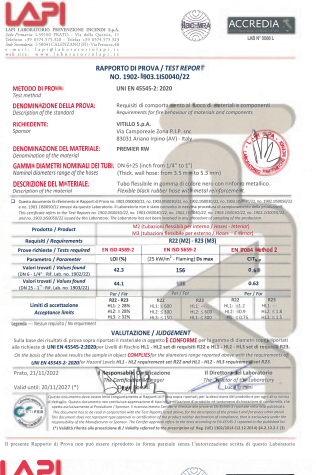
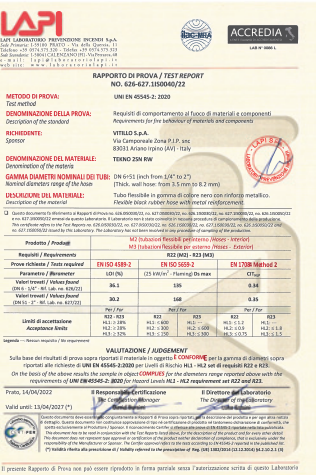
| Vitillo |        | PREMIER RW |       | EN 45545-2 ISO 15540 |     | EXC. EN857 350 Bar |      | ISO 11237 35 MPa |     |
|---------|--------|------------|-------|----------------------|-----|--------------------|------|------------------|-----|
| 6       | 1 1/4" | 0,53       | 13,40 | 6500                 | 450 | 26100              | 1800 | 1,77             | 45  |
| 8       | 5/16"  | 0,58       | 14,70 | 6100                 | 425 | 24650              | 1700 | 2,17             | 55  |
| 10      | 3/8"   | 0,68       | 17,30 | 5600                 | 390 | 22600              | 1560 | 2,56             | 65  |
| 12      | 1/2"   | 0,83       | 21,10 | 5100                 | 350 | 20300              | 1400 | 3,15             | 80  |
| 16      | 5/8"   | 0,99       | 25,20 | 5100                 | 350 | 20300              | 1400 | 3,54             | 90  |
| 19      | 3/4"   | 1,14       | 28,90 | 4300                 | 300 | 17400              | 1200 | 4,72             | 120 |
| 25      | 1"     | 1,41       | 36,00 | 3300                 | 230 | 13300              | 920  | 6,30             | 160 |

|                |               | EN 45545 Hazard level/ Fire test |               |           |  |
|----------------|---------------|----------------------------------|---------------|-----------|--|
| HOSE           | DIAMETER      | R22 (INSIDE)                     | R23 (OUTSIDE) | ISO 15540 |  |
| 15N RW         | 1"-2"         | HL1-HL2                          | HL1-HL2-HL3   |           |  |
| 25N RW         | 1 1/4"-2"     | HL1-HL2                          | HL1-HL2       |           |  |
| PREMIER ONE RW | 1 1/4"-1"     | HL1-HL2                          | HL1-HL2-HL3   | YES       |  |
| PREMIER RW     | 1 1/4"-1"     | HL1-HL2                          | HL1-HL2-HL3   | YES       |  |
| 2TE RW         | 1 1/4"-1 1/4" | HL1-HL2                          | HL1-HL2-HL3   |           |  |
| 3TE RW         | 1"1/4         | HL1-HL2                          | HL1-HL2-HL3   |           |  |

Key

- R22 -> Hoses installed inside the vehicle
- R23 -> Hoses installed outside the vehicle
- HL1 -> HazardLevelLow(class1)
- HL2 -> HazardLevelMedium(class2)
- HL3 -> HazardLevelHigh(class3)

Certificates:



**Vitillo SPA**

Zona Pip Camporeale  
83031 Ariano Irpino (Av)  
Italy  
+39 0825 881555  
+39 0825 881956

**Vitillo USA llc**

76 Blackburn Center  
Gloucester, MA 01930  
Massachusetts  
978-283-0601  
978-283-0602

**Vitillo Germany GmbH**

Düsselberger Str.19  
D-42781 Haan  
Germany  
+49 2104-17420-0  
+49 2104-17420-39

**Vitillo Poland**

Ul. Dworcowa, 53  
44340 Laziska-Godow  
Poland  
+48 327203540  
+48 327203541



[vitillo.eu](http://vitillo.eu)  
[info@vitillo.eu](mailto:info@vitillo.eu)