



**NINGBO TIP FLUID TECHNOLOGY CO., LTD**  
宁波市天普流体科技有限公司

## Company Profile 公司简介



- ① 硬芯车间  
Rigid  
mandrel  
production
- ② 软芯车间  
Flex mandrel  
production
- ③ 办公楼  
Office  
building

TIP Fluid is a manufacturing enterprise specializing in the production of hydraulic hoses and assemblies. The plant is located at Binhai new Zone of Southern Ningbo, the footprint is 90,000 m<sup>2</sup> and the building area is 90,000 m<sup>2</sup>.

The standards our products meet are: EN853 1SN, 2SN; EN857 1SC, 2SC; DIN20022, DIN20023; ISO1436, ISO18752; GBT3683; SAEJ517 100R1, 100R2, 100R16, 100R17, R12, R13, R15, R19。

Customized hydraulic hoses and assemblies can be made according to customer requirements.

Manufacturing Data System: Use TIP Management Platforms:



Rubber Material: Supplying by TIP intelligent rubber mixing plant.

Manufacturing Process: Key process elements manufacturing data Automatic collection, evaluation and release.

天普流体是一家专业生产液压胶管及总成的制造型企业，工厂位于宁波市南部滨海新区占地90000平方，建筑90000平方。液压管执行并通过试验的标准有：EN853 1SN, 2SN; EN857 1SC, 2SC; DIN20022, DIN20023; ISO1436, ISO18752; GBT3683; SAEJ517 100R1, 100R2, 100R16, 100R17, R12, R13, R15, R19等。

根据客户来样需求定制特殊规格的液压管及总成。

数据制造系统：采用了天普股份管理平台：



橡胶材料：由天普的智能炼胶工厂提供。

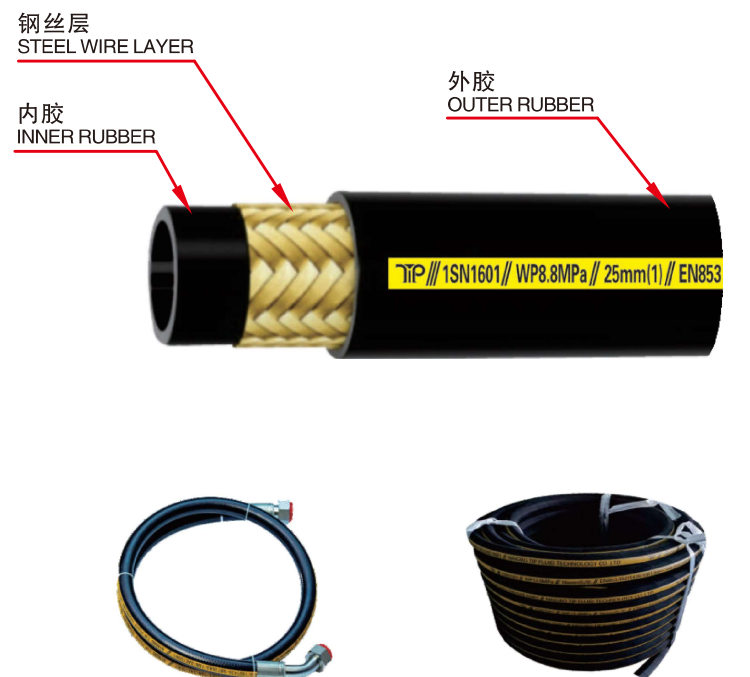
制造过程：关键工艺要素制造数据自动采集、评定、合格放行。

Standard/Performance–Braided Hose

标准与性能介绍 – 编织管

Braided Hoses

编织管



|                              |                 |
|------------------------------|-----------------|
| <b>Standard :</b>            |                 |
| EN853 1SN                    | EN857           |
| GB/T 5563                    | GB/T 5567       |
| GB/T 5568                    | GB/T 9573       |
| GB/T 9575                    | GB/T 7631.2     |
| GB3683 1SN                   | GB/T 14905–2009 |
| GB/T 5564–2006               | GB/T 24134–2009 |
| ISO 1817                     | ISO 6605        |
| ISO 8330                     | ISO 1436 1SN    |
| SAE J343                     | SAE J1401       |
| SAE J516                     | SAE J1475       |
| SAE J518                     | SAE J1942       |
| SAE J846                     | SAE J1453–1     |
| SAE J1273                    | SAE J1942–1     |
| As per customer requirements |                 |

**Inner Tubes:**  
NBR/One Braid of High–Tensile Steel Wire

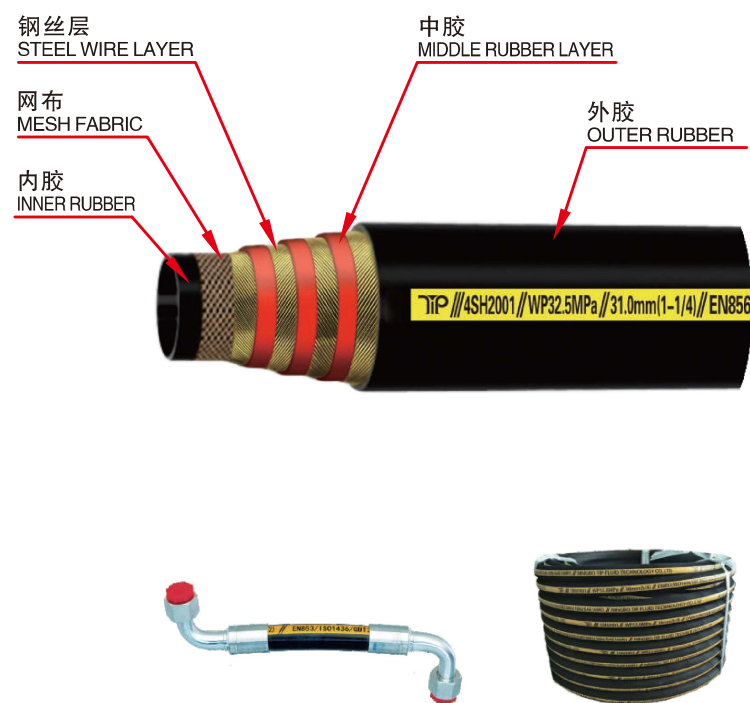
**Temperature Range:**  
–40℃ – 100℃

Standard/Performance–Spiral Hose

标准与性能介绍 – 缠绕管

Spiral Hoses

缠绕管



|                              |                 |
|------------------------------|-----------------|
| <b>Standard:</b>             |                 |
| EN856–R12                    |                 |
| GB/T 5564–2006               | GB/T 14905–2009 |
| GB/T 24134–2009              | GB/T 10544–2013 |
| GB/T 10544 R12               |                 |
| ISO 1307                     | ISO 1402        |
| ISO 1817                     | ISO 4671        |
| ISO 6605                     | ISO 6803        |
| ISO 8330                     | ISO 6743–4      |
| ISO 3862:2009                |                 |
| SAE J343                     | SAE J1401       |
| SAE J516                     | SAE J1475       |
| SAE J518                     | SAE J1942       |
| SAE J846                     | SAE J1453–1     |
| SAE J1273                    | SAE J1942–1     |
| SAE J517 R12                 |                 |
| As per customer requirements |                 |

**Inner Tubes:**  
NBR/CR/Four Alternating layers of Spiral High–Tensile Steel Wire

**Temperature Range:**  
–40℃ – 100℃

# 1SN

- Application : Petroleum based hydraulic oil, Water, Ethylene glycol, Lubricating oil, Air and Water.
- Inner tube : Synthetic rubber.
- Reinforcement : One braid of steel wire.
- Cover : Synthetic rubber.
- Temperature range : -40°C to 100°C. Except: Air +70°C Max. Water: +85°C Max.
- Applicable standards : EN853 1SN, GB3683 1SN, SAE J517 R1S, ISO 1436 1SN



| #            |  |       |      |      |  |       |  |      |  |     |  |      |  |      |  |
|--------------|-----------------------------------------------------------------------------------|-------|------|------|-----------------------------------------------------------------------------------|-------|------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|-----|-------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|
| PRODUCT CODE | INNER DIAMETER                                                                    |       |      |      | OUTER DIAMETER                                                                    |       | WORKING PRESSURE                                                                   |      | MIN BEND RADIUS                                                                     |     | MIN. BURST PRESSURE                                                                 |      | WEIGHT                                                                              |      | STANDARD PACK LENGTH                                                                |
|              | DN                                                                                | inch  | dash | mm   | inch                                                                              | mm    | psi                                                                                | Mpa  | inch                                                                                | mm  | psi                                                                                 | Mpa  | lbs/ft                                                                              | kg/m | Meter                                                                               |
| 1SN0401      | 6.3                                                                               | 1/4   | -4   | 6.7  | 0.52                                                                              | 13.2  | 3263                                                                               | 22.5 | 3.9                                                                                 | 100 | 13050                                                                               | 90   | 0.15                                                                                | 0.2  | 100                                                                                 |
| 1SN0501      | 8                                                                                 | 5/16  | -5   | 8.2  | 0.59                                                                              | 14.98 | 3118                                                                               | 21.5 | 4.5                                                                                 | 115 | 12470                                                                               | 86   | 0.19                                                                                | 0.3  | 100                                                                                 |
| 1SN0601      | 10                                                                                | 3/8   | -6   | 9.7  | 0.67                                                                              | 17.1  | 2610                                                                               | 18   | 5.1                                                                                 | 130 | 10440                                                                               | 72   | 0.23                                                                                | 0.3  | 100                                                                                 |
| 1SN0801      | 12.5                                                                              | 1/2   | -8   | 13.1 | 0.81                                                                              | 20.5  | 2320                                                                               | 16   | 7.1                                                                                 | 180 | 9280                                                                                | 64   | 0.30                                                                                | 0.4  | 100                                                                                 |
| 1SN1001      | 16                                                                                | 5/8   | -10  | 16.3 | 0.93                                                                              | 23.7  | 1885                                                                               | 13   | 7.9                                                                                 | 200 | 7540                                                                                | 52   | 0.35                                                                                | 0.5  | 100                                                                                 |
| 1SN1201      | 19                                                                                | 3/4   | -12  | 19.4 | 1.10                                                                              | 27.9  | 1523                                                                               | 10.5 | 9.4                                                                                 | 240 | 6090                                                                                | 42   | 0.47                                                                                | 0.7  | 55                                                                                  |
| 1SN1601      | 25                                                                                | 1     | -16  | 25.8 | 1.39                                                                              | 35.3  | 1276                                                                               | 8.8  | 11.8                                                                                | 300 | 5104                                                                                | 35.2 | 0.65                                                                                | 1.0  | 55                                                                                  |
| 1SN2001      | 32                                                                                | 1-1/4 | -20  | 32   | 1.70                                                                              | 43.3  | 899                                                                                | 6.2  | 16.5                                                                                | 420 | 3596                                                                                | 24.8 | 0.84                                                                                | 1.3  | 55                                                                                  |
| 1SN2401      | 38                                                                                | 1-1/2 | -24  | 38.3 | 1.96                                                                              | 49.9  | 725                                                                                | 5    | 19.7                                                                                | 500 | 2900                                                                                | 20   | 1.00                                                                                | 1.5  | 55                                                                                  |
| 1SN3201      | 51                                                                                | 2     | -32  | 51.2 | 2.49                                                                              | 63.3  | 580                                                                                | 4    | 24.8                                                                                | 630 | 2320                                                                                | 16   | 1.35                                                                                | 2.0  | 55                                                                                  |
| 1SN4001      | 64                                                                                | 2-1/2 | -48  | 64.5 | 2.99                                                                              | 76    | 580                                                                                | 4    | 31.5                                                                                | 800 | 2320                                                                                | 16   | 1.65                                                                                | 2.5  | 55                                                                                  |

# 1SC

- Application : Petroleum based hydraulic oil, Water, Ethylene glycol, Lubricating oil, Air and Water.
- Inner tube : Synthetic rubber Reinforcement: One braid of steel wire
- Reinforcement : One braid of steel wire.
- Cover : Synthetic rubber.
- Temperature range : -40°C to 100°C. Except: Air +70°C Max. Water: +85°C Max.
- Applicable standards : EN857 1SC



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|--------------|-------------------------------------------------------------------------------------|------|------|------|-------------------------------------------------------------------------------------|------|--------------------------------------------------------------------------------------|------|---------------------------------------------------------------------------------------|-----|---------------------------------------------------------------------------------------|------|---------------------------------------------------------------------------------------|------|---------------------------------------------------------------------------------------|
| PRODUCT CODE | INNER DIAMETER                                                                      |      |      |      | OUTER DIAMETER                                                                      |      | WORKING PRESSURE                                                                     |      | MIN BEND RADIUS                                                                       |     | MIN. BURST PRESSURE                                                                   |      | WEIGHT                                                                                |      | STANDARD PACK LENGTH                                                                  |
|              | DN                                                                                  | inch | dash | mm   | inch                                                                                | mm   | psi                                                                                  | Mpa  | inch                                                                                  | mm  | psi                                                                                   | Mpa  | lbs/ft                                                                                | kg/m | Meter                                                                                 |
| 1SC0401      | 6                                                                                   | 1/4  | -4   | 6.6  | 0.48                                                                                | 12.2 | 3263                                                                                 | 22.5 | 2.0                                                                                   | 50  | 13050                                                                                 | 90   | 0.11                                                                                  | 0.17 | 100                                                                                   |
| 1SC0501      | 8                                                                                   | 5/16 | -5   | 8    | 0.54                                                                                | 13.7 | 3118                                                                                 | 21.5 | 2.2                                                                                   | 55  | 12470                                                                                 | 86   | 0.14                                                                                  | 0.21 | 100                                                                                   |
| 1SC0601      | 10                                                                                  | 3/8  | -6   | 9.8  | 0.61                                                                                | 15.5 | 2610                                                                                 | 18   | 2.5                                                                                   | 63  | 10440                                                                                 | 72   | 0.17                                                                                  | 0.25 | 100                                                                                   |
| 1SC0801      | 12                                                                                  | 1/2  | -8   | 13   | 0.74                                                                                | 18.8 | 2320                                                                                 | 16   | 3.5                                                                                   | 90  | 9280                                                                                  | 64   | 0.22                                                                                  | 0.32 | 100                                                                                   |
| 1SC1001      | 16                                                                                  | 5/8  | -10  | 16.2 | 0.88                                                                                | 22.4 | 1885                                                                                 | 13   | 3.9                                                                                   | 100 | 7540                                                                                  | 52   | 0.29                                                                                  | 0.43 | 100                                                                                   |
| 1SC1201      | 19                                                                                  | 3/4  | -12  | 19.4 | 1.02                                                                                | 26   | 1523                                                                                 | 10.5 | 4.7                                                                                   | 120 | 6090                                                                                  | 42   | 0.36                                                                                  | 0.54 | 55                                                                                    |
| 1SC1601      | 25                                                                                  | 1    | -16  | 25.6 | 1.32                                                                                | 33.6 | 1276                                                                                 | 8.8  | 6.3                                                                                   | 160 | 5104                                                                                  | 35.2 | 0.53                                                                                  | 0.79 | 55                                                                                    |

## 2SN

- Application : Petroleum based hydraulic oil, Water, Ethylene glycol, Lubricating oil, Air and Water
- Inner tube : Synthetic rubber.
- Reinforcement : Two braids of steel wire
- Cover : Synthetic rubber
- Temperature range : -40℃ to 100℃ ; Except: Air +70℃ Max. Water: +85℃ Max
- Applicable standards : EN853 2SN,GB/T 3683 2SN, SAE J517 R2S, ISO 1436 2SN



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| PRODUCT CODE | INNER DIAMETER                                                                    |       |      |      | OUTER DIAMETER                                                                    |       | WORKING PRESSURE                                                                    |      | MIN BEND RADIUS                                                                     |     | MIN. BURST PRESSURE                                                                 |     | WEIGHT                                                                              |      | STANDARD PACK LENGTH                                                                |
|              | DN                                                                                | inch  | dash | mm   | inch                                                                              | mm    | psi                                                                                 | Mpa  | inch                                                                                | mm  | psi                                                                                 | Mpa | lbs/ft                                                                              | kg/m | Meter                                                                               |
| 2SN0401      | 6.3                                                                               | 1/4   | -4   | 6.7  | 0.59                                                                              | 15    | 5800                                                                                | 40   | 3.9                                                                                 | 100 | 23200                                                                               | 160 | 0.23                                                                                | 0.3  | 100                                                                                 |
| 2SN0501      | 8                                                                                 | 5/16  | -5   | 8.2  | 0.65                                                                              | 16.4  | 5075                                                                                | 35   | 4.5                                                                                 | 115 | 20300                                                                               | 140 | 0.27                                                                                | 0.4  | 100                                                                                 |
| 2SN0601      | 10                                                                                | 3/8   | -6   | 9.7  | 0.74                                                                              | 18.8  | 4785                                                                                | 33   | 5.1                                                                                 | 130 | 19140                                                                               | 132 | 0.36                                                                                | 0.5  | 100                                                                                 |
| 2SN0801      | 12.5                                                                              | 1/2   | -8   | 13.1 | 0.86                                                                              | 21.9  | 3988                                                                                | 27.5 | 7.1                                                                                 | 180 | 15950                                                                               | 110 | 0.43                                                                                | 0.6  | 100                                                                                 |
| 2SN1001      | 16                                                                                | 5/8   | -10  | 16.3 | 0.98                                                                              | 25    | 3625                                                                                | 25   | 7.9                                                                                 | 200 | 14500                                                                               | 100 | 0.51                                                                                | 0.8  | 100                                                                                 |
| 2SN1201      | 19                                                                                | 3/4   | -12  | 19.4 | 1.15                                                                              | 29.16 | 3118                                                                                | 21.5 | 9.4                                                                                 | 240 | 12470                                                                               | 86  | 0.65                                                                                | 1.0  | 55                                                                                  |
| 2SN1601      | 25                                                                                | 1     | -16  | 25.8 | 1.47                                                                              | 37.36 | 2393                                                                                | 16.5 | 11.8                                                                                | 300 | 9570                                                                                | 66  | 0.96                                                                                | 1.4  | 55                                                                                  |
| 2SN2001      | 32                                                                                | 1-1/4 | -20  | 32   | 1.85                                                                              | 46.9  | 1813                                                                                | 12.5 | 16.5                                                                                | 420 | 7250                                                                                | 50  | 1.29                                                                                | 1.9  | 55                                                                                  |
| 2SN2401      | 38                                                                                | 1-1/2 | -24  | 38.3 | 2.11                                                                              | 53.6  | 1305                                                                                | 9    | 19.7                                                                                | 500 | 5220                                                                                | 36  | 1.56                                                                                | 2.3  | 55                                                                                  |
| 2SN3201      | 51                                                                                | 2     | -32  | 51.2 | 2.62                                                                              | 66.5  | 1160                                                                                | 8    | 24.8                                                                                | 630 | 4640                                                                                | 32  | 2.01                                                                                | 3.0  | 55                                                                                  |
| 2SN4001      | 64                                                                                | 2-1/2 | -40  | 64.5 | 3.03                                                                              | 76.9  | 1160                                                                                | 8    | 31.5                                                                                | 800 | 4640                                                                                | 32  | 2.12                                                                                | 3.2  | 55                                                                                  |

## 2SC

- Application : Petroleum based hydraulic oil, Water, Ethylene glycol, Lubricating oil, Air and Water
- Inner tube : Synthetic rubber
- Reinforcement : Two braids of steel wire
- Cover : Synthetic rubber
- Temperature range : -40℃ to 100℃ ; Except: Air +70℃ Max. Water: +85℃ Max
- Applicable standards : EN857 2SC



| #            |  |      |      |      |  |      |  |      |  |     |  |     |  |      |  |
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| PRODUCT CODE | INNER DIAMETER                                                                      |      |      |      | OUTER DIAMETER                                                                      |      | WORKING PRESSURE                                                                      |      | MIN BEND RADIUS                                                                       |     | MIN. BURST PRESSURE                                                                   |     | WEIGHT                                                                                |      | STANDARD PACK LENGTH                                                                  |
|              | DN                                                                                  | inch | dash | mm   | inch                                                                                | mm   | psi                                                                                   | Mpa  | inch                                                                                  | mm  | psi                                                                                   | Mpa | lbs/ft                                                                                | kg/m | Meter                                                                                 |
| 2SC0401      | 6                                                                                   | 1/4  | -4   | 6.6  | 0.52                                                                                | 13.3 | 5800                                                                                  | 40   | 2.0                                                                                   | 50  | 23200                                                                                 | 160 | 0.18                                                                                  | 0.27 | 100                                                                                   |
| 2SC0501      | 8                                                                                   | 5/16 | -5   | 8    | 0.59                                                                                | 14.9 | 5075                                                                                  | 35   | 2.2                                                                                   | 55  | 20300                                                                                 | 140 | 0.21                                                                                  | 0.31 | 100                                                                                   |
| 2SC0601      | 10                                                                                  | 3/8  | -6   | 9.8  | 0.68                                                                                | 17.2 | 5003                                                                                  | 34.5 | 2.5                                                                                   | 63  | 20010                                                                                 | 138 | 0.28                                                                                  | 0.41 | 100                                                                                   |
| 2SC0801      | 12                                                                                  | 1/2  | -8   | 13   | 0.80                                                                                | 20.3 | 3988                                                                                  | 27.5 | 3.5                                                                                   | 90  | 15950                                                                                 | 110 | 0.35                                                                                  | 0.52 | 100                                                                                   |
| 2SC1001      | 16                                                                                  | 5/8  | -10  | 16.2 | 0.93                                                                                | 23.7 | 3625                                                                                  | 25   | 3.9                                                                                   | 100 | 14500                                                                                 | 100 | 0.42                                                                                  | 0.62 | 100                                                                                   |
| 2SC1201      | 19                                                                                  | 3/4  | -12  | 19.4 | 1.10                                                                                | 27.9 | 3118                                                                                  | 21.5 | 4.7                                                                                   | 120 | 12470                                                                                 | 86  | 0.54                                                                                  | 0.81 | 55                                                                                    |
| 2SC1601      | 25                                                                                  | 1    | -16  | 25.6 | 1.40                                                                                | 35.5 | 2393                                                                                  | 16.5 | 6.3                                                                                   | 160 | 9570                                                                                  | 66  | 0.77                                                                                  | 1.14 | 55                                                                                    |

# R16

- Application : Petroleum based hydraulic oil, Water, Ethylene glycol, Lubricating oil, Air and Water.
- Inner tube : Synthetic rubber.
- Reinforcement : Two braids of steel wire
- Cover : Synthetic rubber.
- Temperature range : −48°C to +100°C Except: Air +70°C Max. Water: +85°C Max.
- Applicable standards : SAEJ517–100R16



| #            |  |      |      |      |  |      |  |      |  |     |  |     |  |      |  |  |
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| PRODUCT CODE | INNER DIAMETER                                                                    |      |      |      | OUTER DIAMETER                                                                    |      | WORKING PRESSURE                                                                   |      | MIN BEND RADIUS                                                                     |     | MIN. BURST PRESSURE                                                                 |     | WEIGHT                                                                              |      | STANDARD PACK LENGTH                                                                |  |
|              | DN                                                                                | inch | dash | mm   | inch                                                                              | mm   | psi                                                                                | Mpa  | inch                                                                                | mm  | psi                                                                                 | Mpa | lbs/ft                                                                              | kg/m | Meter                                                                               |  |
| R160401      | 6.3                                                                               | 1/4  | −4   | 6.6  | 0.54                                                                              | 13.6 | 5800                                                                               | 40   | 2.0                                                                                 | 50  | 23200                                                                               | 160 | 0.18                                                                                | 0.27 | 100                                                                                 |  |
| R160501      | 8                                                                                 | 5/16 | −5   | 8    | 0.59                                                                              | 14.9 | 5075                                                                               | 35   | 2.2                                                                                 | 55  | 20300                                                                               | 140 | 0.21                                                                                | 0.31 | 100                                                                                 |  |
| R160601      | 10                                                                                | 3/8  | −6   | 9.8  | 0.66                                                                              | 16.8 | 4785                                                                               | 33   | 2.6                                                                                 | 65  | 19140                                                                               | 132 | 0.25                                                                                | 0.37 | 100                                                                                 |  |
| R160801      | 12.5                                                                              | 1/2  | −8   | 13   | 0.81                                                                              | 20.6 | 3988                                                                               | 27.5 | 3.5                                                                                 | 90  | 15950                                                                               | 110 | 0.33                                                                                | 0.49 | 100                                                                                 |  |
| R161001      | 16                                                                                | 5/8  | −10  | 16.2 | 0.93                                                                              | 23.5 | 3625                                                                               | 25   | 3.9                                                                                 | 100 | 14500                                                                               | 100 | 0.38                                                                                | 0.56 | 100                                                                                 |  |
| R161201      | 19                                                                                | 3/4  | −12  | 19.4 | 1.10                                                                              | 28   | 3118                                                                               | 21.5 | 4.7                                                                                 | 120 | 12470                                                                               | 86  | 0.54                                                                                | 0.8  | 55                                                                                  |  |
| R161601      | 25                                                                                | 1    | −16  | 25.6 | 1.38                                                                              | 35.1 | 2393                                                                               | 16.5 | 5.9                                                                                 | 150 | 9570                                                                                | 66  | 0.75                                                                                | 1.12 | 55                                                                                  |  |

# R17

- Application : Petroleum based hydraulic oil, Water, Ethylene glycol, Lubricating oil, Air and Water
- Inner tube : Synthetic rubber
- Reinforcement : One braid or two braids of steel wire
- Cover : Synthetic rubber.
- Temperature range : −40°C to 100°C. Except: Air +70°C Max. Water: +85°C Max.
- Applicable standards : SAE J517 100R17



| #            |  |       |      |      |  |      |  |     |  |     |  |     |  |      |  |  |
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| PRODUCT CODE | INNER DIAMETER                                                                      |       |      |      | OUTER DIAMETER                                                                      |      | WORKING PRESSURE                                                                     |     | MIN BEND RADIUS                                                                       |     | MIN. BURST PRESSURE                                                                   |     | WEIGHT                                                                                |      | STANDARD PACK LENGTH                                                                  |  |
|              | DN                                                                                  | inch  | dash | mm   | inch                                                                                | mm   | psi                                                                                  | Mpa | inch                                                                                  | mm  | psi                                                                                   | Mpa | lbs/ft                                                                                | kg/m | Meter                                                                                 |  |
| R170401      | 6.3                                                                                 | 1/4   | −4   | 6.7  | 0.47                                                                                | 11.9 | 3000                                                                                 | 21  | 2.0                                                                                   | 50  | 12180                                                                                 | 84  | 0.11                                                                                  | 0.17 | 100                                                                                   |  |
| R170501      | 8                                                                                   | 5/16  | −5   | 8.2  | 0.52                                                                                | 13.2 | 3000                                                                                 | 21  | 2.2                                                                                   | 55  | 12180                                                                                 | 84  | 0.13                                                                                  | 0.19 | 100                                                                                   |  |
| R170601      | 10                                                                                  | 3/8   | −6   | 9.7  | 0.61                                                                                | 15.5 | 3000                                                                                 | 21  | 2.6                                                                                   | 65  | 12180                                                                                 | 84  | 0.16                                                                                  | 0.24 | 100                                                                                   |  |
| R170801      | 12.5                                                                                | 1/2   | −8   | 13.1 | 0.80                                                                                | 20.3 | 3000                                                                                 | 21  | 3.5                                                                                   | 90  | 12180                                                                                 | 84  | 0.28                                                                                  | 0.42 | 100                                                                                   |  |
| R171001      | 16                                                                                  | 5/8   | −10  | 16.3 | 0.94                                                                                | 23.9 | 3000                                                                                 | 21  | 3.9                                                                                   | 100 | 12180                                                                                 | 84  | 0.42                                                                                  | 0.62 | 100                                                                                   |  |
| R171201      | 19                                                                                  | 3/4   | −12  | 19.4 | 1.10                                                                                | 28   | 3000                                                                                 | 21  | 4.7                                                                                   | 120 | 12180                                                                                 | 84  | 0.54                                                                                  | 0.81 | 55                                                                                    |  |
| R171601      | 25                                                                                  | 1     | −16  | 25.8 | 1.41                                                                                | 35.7 | 3000                                                                                 | 21  | 5.9                                                                                   | 150 | 12180                                                                                 | 84  | 0.89                                                                                  | 1.32 | 55                                                                                    |  |
| R172001      | 32                                                                                  | 1-1/4 | −20  | 31.5 | 1.85                                                                                | 47   | 3000                                                                                 | 21  | 5.9                                                                                   | 150 | 12180                                                                                 | 84  | 1.50                                                                                  | 2.23 | 55                                                                                    |  |

# R12

- Application : Very high pressure applications used for petroleum – based hydraulic fluid.
- Inner tube : Synthetic rubber.
- Reinforcement : Four alternating layers of spiralled high– tensile steel wire.
- Cover : Black synthetic rubber.
- Temperature range : –40°F to 250°F (–40°C to 121°C).
- Applicable standards : ISO 3862–1 TYPE R12 /SAE J517 100R12 / EN 856 TYPE R12.



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| PRODUCT CODE | INNER DIAMETER                                                                    |       |      |      | OUTER DIAMETER                                                                    |       | WORKING PRESSURE                                                                   |      | MIN BEND RADIUS                                                                     |      | MIN. BURST PRESSURE                                                                 |     | WEIGHT                                                                              |      | STANDARD PACK LENGTH                                                                |
|              | DN                                                                                | inch  | dash | mm   | inch                                                                              | mm    | psi                                                                                | Mpa  | inch                                                                                | mm   | psi                                                                                 | Mpa | lbs/ft                                                                              | kg/m | Meter                                                                               |
| R120601      | 10                                                                                | 3/8   | –6   | 9.7  | 0.78                                                                              | 19.86 | 4060                                                                               | 28   | 2.46                                                                                | 62.5 | 16240                                                                               | 112 | 0.47                                                                                | 0.7  | 60                                                                                  |
| R120801      | 12.5                                                                              | 1/2   | –8   | 12.9 | 0.92                                                                              | 23.36 | 4060                                                                               | 28   | 3.54                                                                                | 90   | 16240                                                                               | 112 | 0.59                                                                                | 0.9  | 60                                                                                  |
| R121001      | 16                                                                                | 5/8   | –10  | 16.1 | 1.05                                                                              | 26.76 | 4060                                                                               | 28   | 3.94                                                                                | 100  | 16240                                                                               | 112 | 0.70                                                                                | 1.0  | 60                                                                                  |
| R121201      | 19                                                                                | 3/4   | –12  | 19.2 | 1.19                                                                              | 30.14 | 4060                                                                               | 28   | 4.72                                                                                | 120  | 16240                                                                               | 112 | 0.84                                                                                | 1.2  | 60                                                                                  |
| R121601      | 25                                                                                | 1     | –16  | 25.7 | 1.46                                                                              | 36.96 | 4060                                                                               | 28   | 5.91                                                                                | 150  | 16240                                                                               | 112 | 1.27                                                                                | 1.9  | 60                                                                                  |
| R122001      | 31.5                                                                              | 1–1/4 | –20  | 32.2 | 1.80                                                                              | 45.74 | 3045                                                                               | 21   | 8.27                                                                                | 210  | 12180                                                                               | 84  | 1.64                                                                                | 2.4  | 60                                                                                  |
| R122401      | 38                                                                                | 1–1/2 | –24  | 38.5 | 2.03                                                                              | 51.46 | 2538                                                                               | 17.5 | 9.84                                                                                | 250  | 10150                                                                               | 70  | 2.04                                                                                | 3.0  | 60                                                                                  |
| R123201      | 51                                                                                | 2     | –32  | 51.2 | 2.60                                                                              | 66.16 | 2538                                                                               | 17.5 | 12.60                                                                               | 320  | 10150                                                                               | 70  | 2.91                                                                                | 4.3  | 60                                                                                  |

# R13

- Application : Very high pressure applications to surge or flexing such as construction equipment, mining and the high–performance industrial market.
- Inner tube : Synthetic rubber
- Reinforcement : Four alternating layers of spiralled high–tensile steel wire and six alternating layers of spiralled high–tensile steel wire;
- Cover : Black synthetic rubber.
- Temperature range : –40°F to 250°F (–40°C to 121°C).
- Applicable standards : GB/T 10544 R13, EN856–R13, SAE J517 R13, GB/T 18947 type 6, ISO 6805 type 6, SAEJ517–100R13



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| PRODUCT CODE | INNER DIAMETER                                                                      |       |      |      | OUTER DIAMETER                                                                      |    | WORKING PRESSURE                                                                     |     | MIN BEND RADIUS                                                                       |     | MIN. BURST PRESSURE                                                                   |     | WEIGHT                                                                                |      | STANDARD PACK LENGTH                                                                  |
|              | DN                                                                                  | inch  | dash | mm   | inch                                                                                | mm | psi                                                                                  | Mpa | inch                                                                                  | mm  | psi                                                                                   | Mpa | lbs/ft                                                                                | kg/m | Meter                                                                                 |
| R131201      | 19                                                                                  | 3/4   | –12  | 19.2 | 1.26                                                                                | 32 | 5075                                                                                 | 35  | 9.45                                                                                  | 240 | 20010                                                                                 | 138 | 1.07                                                                                  | 1.6  | 60                                                                                    |
| R131601      | 25                                                                                  | 1     | –16  | 25.7 | 1.51                                                                                | 38 | 5075                                                                                 | 35  | 11.81                                                                                 | 300 | 20010                                                                                 | 138 | 1.36                                                                                  | 2.0  | 60                                                                                    |
| R132001      | 32                                                                                  | 1–1/4 | –20  | 32.2 | 2.04                                                                                | 52 | 5075                                                                                 | 35  | 16.54                                                                                 | 420 | 20010                                                                                 | 138 | 2.64                                                                                  | 3.9  | 60                                                                                    |
| R132401      | 38                                                                                  | 1–1/2 | –24  | 38.5 | 2.25                                                                                | 57 | 5075                                                                                 | 35  | 19.69                                                                                 | 500 | 20010                                                                                 | 138 | 3.21                                                                                  | 4.8  | 60                                                                                    |
| R133201      | 51                                                                                  | 2     | –32  | 51.2 | 2.81                                                                                | 71 | 5075                                                                                 | 35  | 24.80                                                                                 | 630 | 20010                                                                                 | 138 | 4.75                                                                                  | 7.1  | 60                                                                                    |
| R134001      | 64                                                                                  | 2–1/2 | –40  | 63   | 3.50                                                                                | 89 | 5075                                                                                 | 35  | 24.80                                                                                 | 630 | 20010                                                                                 | 138 | 6.38                                                                                  | 9.5  | 60                                                                                    |

# R15

- Application : Very high pressure applications to surge or flexing such as construction equipment, mining and the high–performance industrial market.
- Inner tube : Synthetic rubber.
- Reinforcement : Four alternating layers of spiralled high–tensile steel wire and six alternating layers of spiralled high–tensile steel wire.
- Cover : Black synthetic rubber
- Temperature range : -40°F to 250°F (-40°C to 121°C)
- Applicable standards : ISO 3862–1 Type R15 / SAE J517 100R15



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| PRODUCT CODE | INNER DIAMETER                                                                    |       |      |      | OUTER DIAMETER                                                                    |      | WORKING PRESSURE                                                                   |     | MIN BEND RADIUS                                                                     |     | MIN. BURST PRESSURE                                                                 |     | WEIGHT                                                                              |      | STANDARD PACK LENGTH                                                                |
|              | DN                                                                                | inch  | dash | mm   | inch                                                                              | mm   | psi                                                                                | Mpa | inch                                                                                | mm  | psi                                                                                 | Mpa | lbs/ft                                                                              | kg/m | Meter                                                                               |
| R150601      | 10                                                                                | 3/8   | –6   | 9.7  | 0.81                                                                              | 20.5 | 6090                                                                               | 42  | 5.91                                                                                | 150 | 24360                                                                               | 168 | 0.47                                                                                | 0.7  | 60                                                                                  |
| R150801      | 12.5                                                                              | 1/2   | –8   | 12.9 | 0.92                                                                              | 23.4 | 6090                                                                               | 42  | 7.87                                                                                | 200 | 24360                                                                               | 168 | 0.58                                                                                | 0.9  | 60                                                                                  |
| R151001      | 16                                                                                | 5/8   | –10  | 16.1 | 1.06                                                                              | 27   | 6090                                                                               | 42  | 10.43                                                                               | 265 | 24360                                                                               | 168 | 0.83                                                                                | 1.2  | 60                                                                                  |
| R151201      | 19                                                                                | 3/4   | –12  | 19.2 | 1.18                                                                              | 29.9 | 6090                                                                               | 42  | 10.43                                                                               | 265 | 24360                                                                               | 168 | 0.93                                                                                | 1.4  | 60                                                                                  |
| R151601      | 25                                                                                | 1     | –16  | 25.7 | 1.46                                                                              | 37.1 | 6090                                                                               | 42  | 12.99                                                                               | 330 | 24360                                                                               | 168 | 1.33                                                                                | 2.0  | 60                                                                                  |
| R152001      | 31.5                                                                              | 1–1/4 | –20  | 32.2 | 1.91                                                                              | 48.4 | 6090                                                                               | 42  | 17.52                                                                               | 445 | 24360                                                                               | 168 | 2.39                                                                                | 3.6  | 60                                                                                  |
| R152401      | 38                                                                                | 1–1/2 | –24  | 38.5 | 2.19                                                                              | 55.7 | 6090                                                                               | 42  | 20.87                                                                               | 530 | 24360                                                                               | 168 | 3.05                                                                                | 4.5  | 60                                                                                  |
| R153201      | 51                                                                                | 2     | –32  | 51.2 | 2.76                                                                              | 70   | 6090                                                                               | 42  | 20.87                                                                               | 530 | 24360                                                                               | 168 | 4.23                                                                                | 6.3  | 60                                                                                  |

# 4SH

- Application : Very high pressure applications to surge or flexing such as construction equipment, mining and the high–performance industrial market.
- Inner tube : Synthetic rubber
- Reinforcement : Four alternating layers of spiralled high– tensile steel wire
- Cover : Black synthetic rubber
- Temperature range : -40°F to +212°F (-40°C to +100°C)
- Applicable standards : EN856 – 4SH



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| PRODUCT CODE | INNER DIAMETER                                                                      |       |      |      | OUTER DIAMETER                                                                      |      | WORKING PRESSURE                                                                     |      | MIN BEND RADIUS                                                                       |     | MIN. BURST PRESSURE                                                                   |     | WEIGHT                                                                                |      | STANDARD PACK LENGTH                                                                  |
|              | DN                                                                                  | inch  | dash | mm   | inch                                                                                | mm   | psi                                                                                  | Mpa  | inch                                                                                  | mm  | psi                                                                                   | Mpa | lbs/ft                                                                                | kg/m | Meter                                                                                 |
| 4SH1001      | 16                                                                                  | 5/8   | –10  | 16.1 | 1.13                                                                                | 28.7 | 6525                                                                                 | 45   | 9.84                                                                                  | 250 | 26100                                                                                 | 180 | 0.70                                                                                  | 1.0  | 60                                                                                    |
| 4SH1201      | 19                                                                                  | 3/4   | –12  | 19.2 | 1.27                                                                                | 32.2 | 6090                                                                                 | 42   | 11.02                                                                                 | 280 | 24360                                                                                 | 168 | 0.98                                                                                  | 1.5  | 60                                                                                    |
| 4SH1601      | 25                                                                                  | 1     | –16  | 25.7 | 1.52                                                                                | 38.7 | 5510                                                                                 | 38   | 13.39                                                                                 | 340 | 22040                                                                                 | 152 | 1.35                                                                                  | 2.0  | 60                                                                                    |
| 4SH2001      | 31.5                                                                                | 1–1/4 | –20  | 32.2 | 1.79                                                                                | 45.5 | 4713                                                                                 | 32.5 | 18.11                                                                                 | 460 | 18850                                                                                 | 130 | 1.70                                                                                  | 2.5  | 60                                                                                    |
| 4SH2401      | 38                                                                                  | 1–1/2 | –24  | 38.5 | 2.11                                                                                | 53.5 | 4205                                                                                 | 29   | 22.05                                                                                 | 560 | 16820                                                                                 | 116 | 2.20                                                                                  | 3.3  | 60                                                                                    |
| 4SH3201      | 51                                                                                  | 2     | –32  | 51.3 | 2.68                                                                                | 68.1 | 3625                                                                                 | 25   | 27.56                                                                                 | 700 | 14500                                                                                 | 100 | 3.18                                                                                  | 4.7  | 60                                                                                    |

# 4SP

- Application : Very high pressure applications to surge or flexing such as construction equipment, mining and the high–performance industrial market.
- Inner tube : Synthetic rubber.
- Reinforcement : Four alternating layers of spiralled high–tensile steel wire.
- Cover : Black synthetic rubber.
- Temperature range : -40°F to +212°F (-40°C to +100°C).
- Applicable standards : EN856 – 4SP



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| PRODUCT CODE | INNER DIAMETER                                                                    |       |      |      | OUTER DIAMETER                                                                    |    | WORKING PRESSURE                                                                   |      | MIN BEND RADIUS                                                                     |     | MIN. BURST PRESSURE                                                                 |     | WEIGHT                                                                              |      | STANDARD PACK LENGTH                                                                |
|              | DN                                                                                | inch  | dash | mm   | inch                                                                              | mm | psi                                                                                | Mpa  | inch                                                                                | mm  | psi                                                                                 | Mpa | lbs/ft                                                                              | kg/m | Meter                                                                               |
| 4SP0601      | 10                                                                                | 3/8   | –6   | 9.8  | 0.84                                                                              | 21 | 6453                                                                               | 44.5 | 7.09                                                                                | 180 | 25810                                                                               | 178 | 0.52                                                                                | 0.8  | 60                                                                                  |
| 4SP0801      | 13                                                                                | 1/2   | –8   | 13.1 | 0.97                                                                              | 25 | 6018                                                                               | 41.5 | 9.06                                                                                | 230 | 24070                                                                               | 166 | 0.64                                                                                | 1.0  | 60                                                                                  |
| 4SP1001      | 16                                                                                | 5/8   | –10  | 16.3 | 1.09                                                                              | 28 | 5075                                                                               | 35.0 | 9.84                                                                                | 250 | 20300                                                                               | 140 | 0.73                                                                                | 1.1  | 60                                                                                  |
| 4SP1201      | 19                                                                                | 3/4   | –12  | 19.3 | 1.26                                                                              | 32 | 5075                                                                               | 35.0 | 11.81                                                                               | 300 | 20300                                                                               | 140 | 1.07                                                                                | 1.6  | 60                                                                                  |
| 4SP1601      | 25                                                                                | 1     | –16  | 25.9 | 1.56                                                                              | 40 | 4060                                                                               | 28.0 | 13.39                                                                               | 340 | 16240                                                                               | 112 | 1.36                                                                                | 2.0  | 60                                                                                  |
| 4SP2001      | 32                                                                                | 1-1/4 | –20  | 32.4 | 1.99                                                                              | 50 | 3045                                                                               | 21.0 | 18.11                                                                               | 460 | 12180                                                                               | 84  | 2.01                                                                                | 3.0  | 60                                                                                  |
| 4SP2401      | 38                                                                                | 1-1/2 | –24  | 38.7 | 2.24                                                                              | 57 | 2683                                                                               | 18.5 | 22.05                                                                               | 560 | 10730                                                                               | 74  | 2.64                                                                                | 3.9  | 60                                                                                  |
| 4SP3201      | 51                                                                                | 2     | –32  | 51.3 | 2.74                                                                              | 70 | 2393                                                                               | 16.5 | 25.98                                                                               | 660 | 9570                                                                                | 66  | 3.31                                                                                | 4.9  | 60                                                                                  |
| 4SP4001      | 64                                                                                | 2-1/2 | –40  | 63.5 | 3.25                                                                              | 83 | 2393                                                                               | 16.5 | 27.56                                                                               | 700 | 9570                                                                                | 66  | 3.83                                                                                | 5.7  | 60                                                                                  |

# Class 42MPa

- Application : Very high pressure applications to surge or flexing such as construction equipment, mining and the high–performance industrial market
- Inner tube : Synthetic rubber
- Reinforcement : Four alternating layers of spiralled high–tensile steel wire and six alternating layers of spiralled high–tensile steel wire
- Cover : Black synthetic rubber
- Temperature range : -40°F to +212°F (-40°C to +100°C).
- Applicable standards : ISO18752, SAEJ517–100R15



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| PRODUCT CODE | INNER DIAMETER                                                                      |       |      |       | OUTER DIAMETER                                                                      |      | WORKING PRESSURE                                                                     |     | MIN BEND RADIUS                                                                       |     | MIN. BURST PRESSURE                                                                   |     | WEIGHT                                                                                |      | STANDARD PACK LENGTH                                                                  |
|              | DN                                                                                  | inch  | dash | mm    | inch                                                                                | mm   | psi                                                                                  | Mpa | inch                                                                                  | mm  | psi                                                                                   | Mpa | lbs/ft                                                                                | kg/m | Meter                                                                                 |
| R150601      | 10                                                                                  | 3/8   | –6   | 9.7   | 0.77                                                                                | 19.6 | 6090                                                                                 | 42  | 5.9                                                                                   | 150 | 24360                                                                                 | 168 | 0.45                                                                                  | 0.7  | 60                                                                                    |
| R150801      | 12.5                                                                                | 1/2   | –8   | 12.9  | 1.03                                                                                | 26.1 | 6090                                                                                 | 42  | 7.9                                                                                   | 200 | 24360                                                                                 | 168 | 0.73                                                                                  | 1.1  | 60                                                                                    |
| R151001      | 16                                                                                  | 5/8   | –10  | 16.25 | 1.23                                                                                | 31.1 | 6090                                                                                 | 42  | 10.4                                                                                  | 265 | 24360                                                                                 | 168 | 1.10                                                                                  | 1.6  | 60                                                                                    |
| R151201      | 19                                                                                  | 3/4   | –12  | 19.2  | 1.23                                                                                | 31.1 | 6090                                                                                 | 42  | 10.4                                                                                  | 265 | 24360                                                                                 | 168 | 1.02                                                                                  | 1.5  | 60                                                                                    |
| R151601      | 25                                                                                  | 1     | –16  | 25.7  | 1.53                                                                                | 38.8 | 6090                                                                                 | 42  | 13.0                                                                                  | 330 | 24360                                                                                 | 168 | 1.53                                                                                  | 2.3  | 60                                                                                    |
| R152001      | 31.5                                                                                | 1-1/4 | –20  | 32.2  | 1.94                                                                                | 49.2 | 6090                                                                                 | 42  | 17.5                                                                                  | 445 | 24360                                                                                 | 168 | 2.69                                                                                  | 4.0  | 60                                                                                    |
| R152401      | 38                                                                                  | 1-1/2 | –24  | 38.5  | 2.23                                                                                | 56.8 | 6090                                                                                 | 42  | 20.9                                                                                  | 530 | 24360                                                                                 | 168 | 3.30                                                                                  | 4.9  | 60                                                                                    |
| R153201      | 51                                                                                  | 2     | –32  | 51    | 2.66                                                                                | 67.6 | 6090                                                                                 | 42  | 15.0                                                                                  | 380 | 24360                                                                                 | 168 | 4.37                                                                                  | 6.5  | 60                                                                                    |

## Class 21MPa

- Application : Very high pressure applications to surge or flexing such as construction equipment, mining and the high –performance industrial market
- Inner tube : Synthetic rubber.
- Reinforcement : One–braid or two–braids of high–tensile steel wire
- Cover : Black synthetic rubber
- Temperature range : -40°F to +212°F (-40°C to +100°C)
- Applicable standards : ISO18752, SAEJ517–100R17



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| PRODUCT CODE | INNER DIAMETER                                                                    |      |      |      | OUTER DIAMETER                                                                    |       | WORKING PRESSURE                                                                   |     | MIN BEND RADIUS                                                                     |     | MIN. BURST PRESSURE                                                                 |     | WEIGHT                                                                              |      | STANDARD PACK LENGTH                                                                |
|              | DN                                                                                | inch | dash | mm   | inch                                                                              | mm    | psi                                                                                | Mpa | inch                                                                                | mm  | psi                                                                                 | Mpa | lbs/ft                                                                              | kg/m | Meter                                                                               |
| R170401      | 6.3                                                                               | 1/4  | -4   | 6.7  | 0.47                                                                              | 11.9  | 3045                                                                               | 21  | 2                                                                                   | 50  | 12180                                                                               | 84  | 0.11                                                                                | 0.17 | 100                                                                                 |
| R170501      | 8                                                                                 | 5/16 | -5   | 8.2  | 0.52                                                                              | 13.2  | 3045                                                                               | 21  | 2                                                                                   | 55  | 12180                                                                               | 84  | 0.13                                                                                | 0.19 | 100                                                                                 |
| R170601      | 10                                                                                | 3/8  | -6   | 9.7  | 0.61                                                                              | 15.5  | 3045                                                                               | 21  | 2-1/2                                                                               | 65  | 12180                                                                               | 84  | 0.16                                                                                | 0.24 | 100                                                                                 |
| R170801      | 12.5                                                                              | 1/2  | -8   | 13.1 | 0.80                                                                              | 20.3  | 3045                                                                               | 21  | 3-1/2                                                                               | 90  | 12180                                                                               | 84  | 0.28                                                                                | 0.42 | 100                                                                                 |
| R171001      | 16                                                                                | 5/8  | -10  | 16.3 | 0.94                                                                              | 23.9  | 3045                                                                               | 21  | 4                                                                                   | 100 | 12180                                                                               | 84  | 0.42                                                                                | 0.62 | 100                                                                                 |
| R171201      | 19                                                                                | 3/4  | -12  | 19.4 | 1.10                                                                              | 28    | 3045                                                                               | 21  | 4-3/4                                                                               | 120 | 12180                                                                               | 84  | 0.54                                                                                | 0.81 | 55                                                                                  |
| R171601      | 25                                                                                | 1    | -16  | 25.8 | 1.41                                                                              | 35.74 | 3045                                                                               | 21  | 6                                                                                   | 150 | 12180                                                                               | 84  | 0.89                                                                                | 1.32 | 55                                                                                  |

## Class 28MPa

- Application : Very high pressure applications to surge or flexing such as construction equipment, mining and the high–performance industrial market
- Inner tube : Synthetic rubber
- Reinforcement : Two–braids of high–tensile steel wire
- Cover : Black synthetic rubber
- Temperature range : -40°F to +212°F (-40°C to +100°C)
- Applicable standards : SAEJ517–100R19, ISO18752



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| PRODUCT CODE | INNER DIAMETER                                                                      |      |      |      | OUTER DIAMETER                                                                      |      | WORKING PRESSURE                                                                     |     | MIN BEND RADIUS                                                                       |     | MIN. BURST PRESSURE                                                                   |     | WEIGHT                                                                                |      | STANDARD PACK LENGTH                                                                  |
|              | DN                                                                                  | inch | dash | mm   | inch                                                                                | mm   | psi                                                                                  | Mpa | inch                                                                                  | mm  | psi                                                                                   | Mpa | lbs/ft                                                                                | kg/m | Meter                                                                                 |
| R190401      | 6.3                                                                                 | 1/4  | -4   | 6.3  | 0.51                                                                                | 13   | 4060                                                                                 | 28  | 2                                                                                     | 50  | 16240                                                                                 | 112 | 0.20                                                                                  | 0.30 | 100                                                                                   |
| R190601      | 10                                                                                  | 3/8  | -6   | 10   | 0.67                                                                                | 17   | 4060                                                                                 | 28  | 2                                                                                     | 65  | 16240                                                                                 | 112 | 0.28                                                                                  | 0.42 | 100                                                                                   |
| R190801      | 12.5                                                                                | 1/2  | -8   | 12.5 | 0.80                                                                                | 20   | 4060                                                                                 | 28  | 2-1/2                                                                                 | 90  | 16240                                                                                 | 112 | 0.35                                                                                  | 0.52 | 100                                                                                   |
| R191001      | 16                                                                                  | 5/8  | -10  | 16   | 0.93                                                                                | 24   | 4060                                                                                 | 28  | 3-1/2                                                                                 | 100 | 16240                                                                                 | 112 | 0.44                                                                                  | 0.66 | 100                                                                                   |
| R191201      | 19                                                                                  | 3/4  | -12  | 19   | 1.09                                                                                | 28   | 4060                                                                                 | 28  | 4                                                                                     | 120 | 16240                                                                                 | 112 | 0.58                                                                                  | 0.86 | 55                                                                                    |
| R191601      | 25                                                                                  | 1    | -16  | 25.7 | 1.26                                                                                | 32.4 | 4060                                                                                 | 28  | 6                                                                                     | 150 | 16240                                                                                 | 112 | 0.81                                                                                  | 1.2  | 55                                                                                    |

# Class 35MPa

- Application : Very high pressure applications to surge or flexing such as construction equipment, mining and the high-performance industrial market
- Inner tube : Synthetic rubber.
- Reinforcement : Four alternating layers of spiralled high-tensile steel wire and six alternating layers of spiralled high-tensile steel wire
- Cover : Black synthetic rubber
- Temperature range : -40°F to +212°F (-40°C to +100°C).
- Applicable standards : ISO18752, SAEJ517-100R13



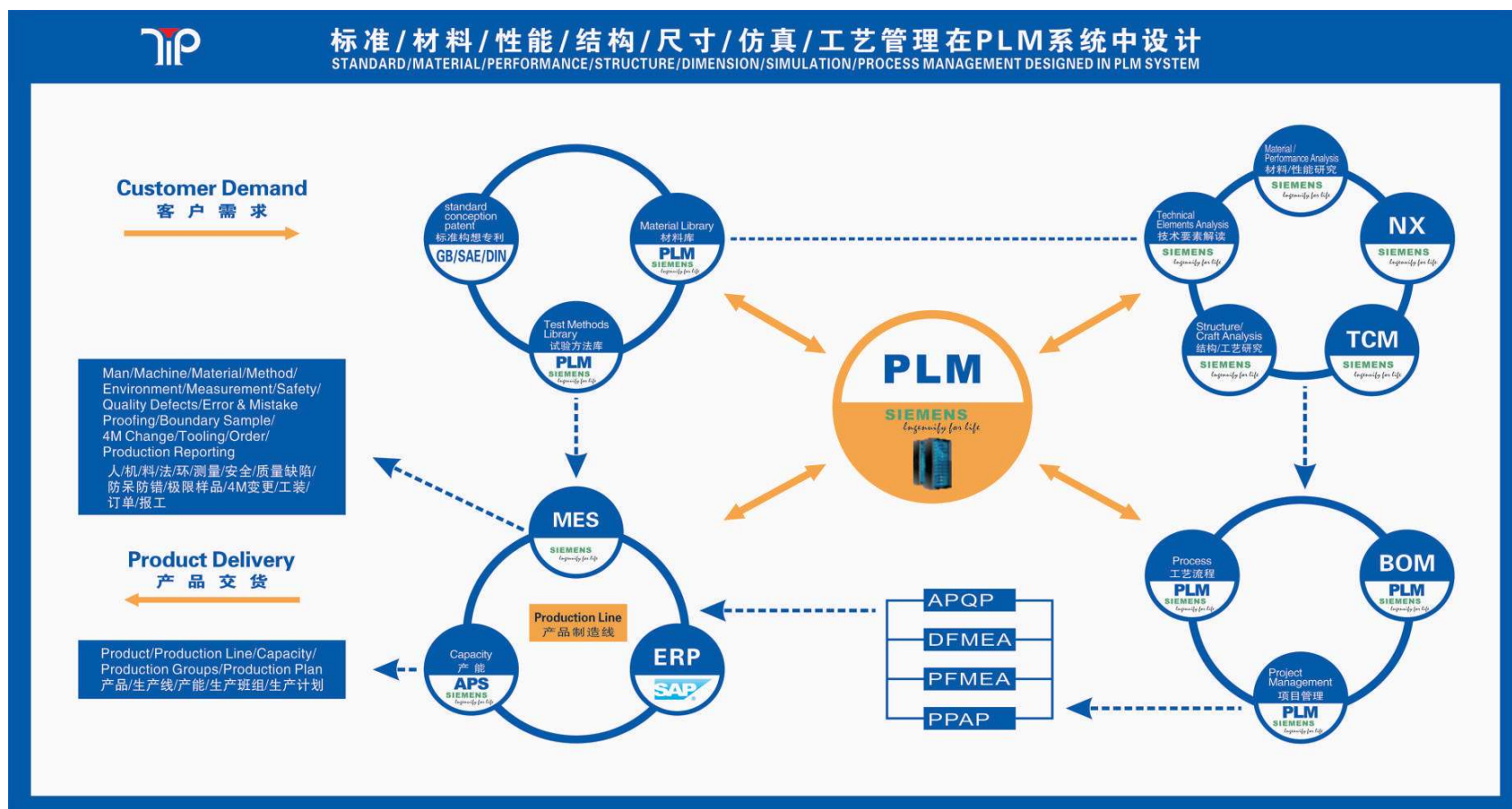
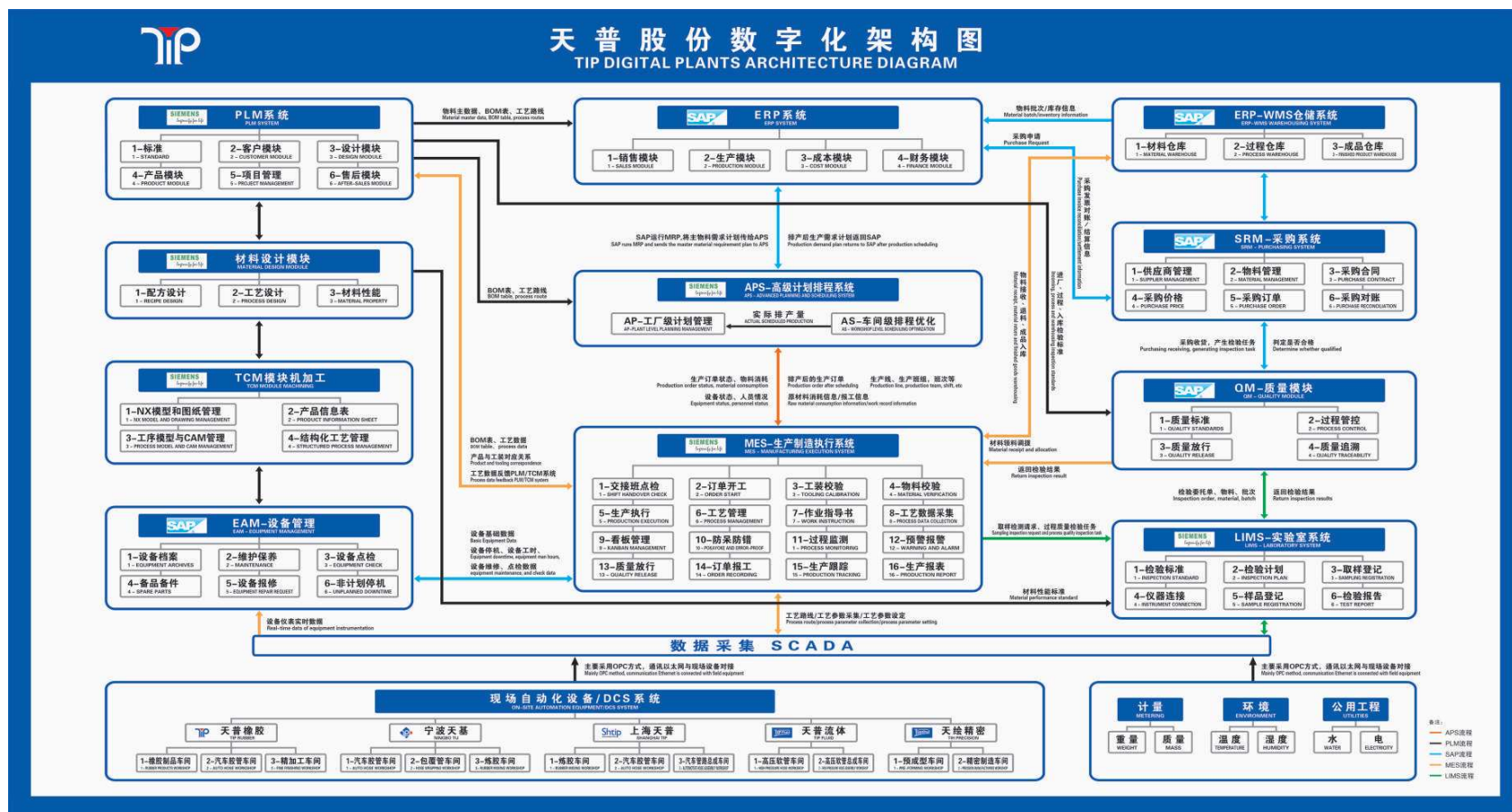
| #            |  |       |      |      |  |    |  |      |  |     |  |     |  |      |  |
|--------------|-----------------------------------------------------------------------------------|-------|------|------|-----------------------------------------------------------------------------------|----|------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|-----|-------------------------------------------------------------------------------------|-----|-------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|
| PRODUCT CODE | INNER DIAMETER                                                                    |       |      |      | OUTER DIAMETER                                                                    |    | WORKING PRESSURE                                                                   |      | MIN BEND RADIUS                                                                     |     | MIN. BURST PRESSURE                                                                 |     | WEIGHT                                                                              |      | STANDARD PACK LENGTH                                                                |
|              | DN                                                                                | inch  | dash | mm   | inch                                                                              | mm | psi                                                                                | Mpa  | inch                                                                                | mm  | psi                                                                                 | Mpa | lbs/ft                                                                              | kg/m | Meter                                                                               |
| R131201      | 19                                                                                | 3/4   | -12  | 19.2 | 1.26                                                                              | 32 | 5075                                                                               | 35.0 | 9.45                                                                                | 240 | 20010                                                                               | 138 | 1.07                                                                                | 1.6  | 60                                                                                  |
| R131601      | 25                                                                                | 1     | -16  | 25.7 | 1.51                                                                              | 38 | 5075                                                                               | 35.0 | 11.81                                                                               | 300 | 20010                                                                               | 138 | 1.36                                                                                | 2.0  | 60                                                                                  |
| R132001      | 32                                                                                | 1-1/4 | -20  | 32.2 | 2.04                                                                              | 52 | 5075                                                                               | 35.0 | 16.54                                                                               | 420 | 20010                                                                               | 138 | 2.64                                                                                | 3.9  | 60                                                                                  |
| R132401      | 38                                                                                | 1-1/2 | -24  | 38.5 | 2.25                                                                              | 57 | 5075                                                                               | 35.0 | 19.69                                                                               | 500 | 20010                                                                               | 138 | 3.21                                                                                | 4.8  | 60                                                                                  |
| R133201      | 51                                                                                | 2     | -32  | 51.2 | 2.81                                                                              | 71 | 5075                                                                               | 35.0 | 24.80                                                                               | 630 | 20010                                                                               | 138 | 4.75                                                                                | 7.1  | 60                                                                                  |
| R134001      | 64                                                                                | 2-1/2 | -40  | 63   | 3.50                                                                              | 89 | 5075                                                                               | 35.0 | 24.80                                                                               | 630 | 20010                                                                               | 138 | 6.38                                                                                | 9.5  | 60                                                                                  |

## Resin Tubes/Rods 树脂管/棒

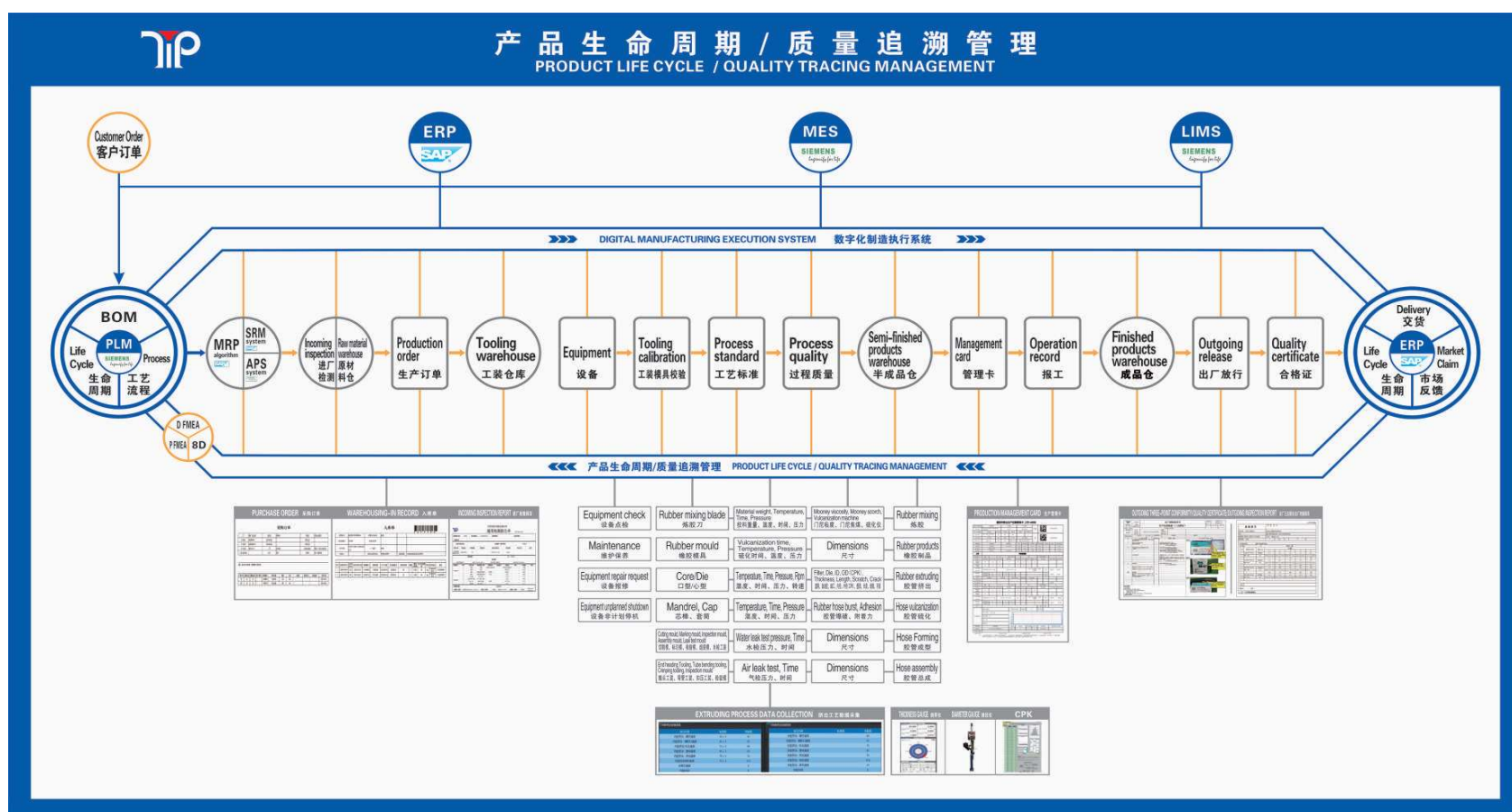


| ID                           | * | OD |
|------------------------------|---|----|
| 4                            |   | 6  |
| 5                            |   | 9  |
| 6                            |   | 9  |
| 8                            |   | 12 |
| 10                           |   | 14 |
| 12                           |   | 16 |
| 16                           |   | 20 |
| As per customer requirements |   |    |
| Material                     |   |    |
| PA11、PA12、PA66               |   |    |

| SPECS                        | * | SIZE  |
|------------------------------|---|-------|
| -4                           |   | Φ6.25 |
| -5                           |   | Φ7.7  |
| -6                           |   | Φ9.25 |
| -8                           |   | Φ12.3 |
| -10                          |   | Φ15.3 |
| -12                          |   | Φ18.3 |
| -16                          |   | Φ24.5 |
| As per customer requirements |   |       |
| Material                     |   |       |
| TPX、PA11、PA12、PA66           |   |       |



PLM Product  
Lifetime  
Management  
PLM产品生命  
周期管理



Quality Tracking  
System  
质量追溯管理

**Metallic Material Test 金属材料检测**



Direct-Reading Spectrometer  
直读光谱仪(德国斯派克)



Auto Metallographic Mosaic Machine  
金相自动镶嵌机(莱州蔚仪)



Auto Metallographic Polishing Machine  
金相自动磨抛机(莱州蔚仪)



Metallographic Microscope  
金相显微镜(日本奥林巴斯)



Auto Metallographical Cutter  
手自一体金相切割机(莱州蔚仪)

**High polymer Material Test 高分子材料检测**



Infrared Spectrometer  
红外光谱仪



Chemistry Analysis  
化学分析



Mooney Viscosity Tester  
门尼粘度机



Tensile Tester  
拉力试验机



Ozone Tester  
臭氧老化箱

**Dimension Measurement 尺寸测量**



Coordinate Measuring Machine  
三坐标测量仪



Surfagauge  
表面粗糙度测量仪(东京精密)



Contourgraph  
轮廓形状测量机(东京精密)



Cylindrical Shape Measuring Instrument  
圆柱度形状测量机(东京精密)



Video Measuring Machine  
影像测定仪

**Rubber Hose Impulse Test Bench 汽车胶管脉冲试验台**

**Water/A/C Hose Test  
水管/空调管试验**



Vacuum Chamber Leakage  
Detection System  
真空箱氦检漏系统



Three Comprehensive  
Test Chamber-Vibrator  
三综合试验台-振动机



Water Impulse  
Test Machine  
水脉冲试验机

**Online test 在线检测**

**Fuel/Turbo Charge Hose Test  
油管/涡轮增压管试验**



Pressure Impulse  
Test Stand  
压力脉冲机



Fuel Impulse  
Test Machine  
油系脉冲机



High Temperature  
Impulse Test Stand  
高温脉冲试验台



Temperature Chamber  
高低温交变箱



X ray thickness tester(Sikora)  
X光测厚仪(西科拉)



High Pressure Blasting Test Machine  
高压爆破试验机



Low Pressure Burst Test Machine  
低压爆破试验机



Uniflex crimping machine  
扣压机(德国)



Material Test  
材料试验



Bimal dynamic impulse test machine  
比尔玛动态脉冲试验机(意大利)



HELD Dynamic Impulse Test Stand  
德国HELD动态脉冲试验机



Static Impulse Test Stand (HELD 3 sets)  
静态脉冲试验机 (HELD 3台)



36锭德国进口 Mayer 编织机 (1台)  
48锭意大利进口 OMA 编织机 (1台)  
Mayer 36-carriers braiding machine (1 set)  
OMA 48-carriers braiding machine (1 set)



24锭德国进口 Mayer 编织机 (8台)  
24锭意大利进口 OMA 编织机 (3台)  
Mayer 24-carriers braiding machine (8 sets)  
OMA 24-carriers braiding machine (3 sets)



18锭德国进口 Mayer 编织机 (3台)  
20锭意大利进口 OMA 编织机 (3台)  
Mayer 18-carriers braiding machine (3 sets)  
OMA 20-carriers braiding machine (3 sets)



德国进口 Mayer 合股机 (4台)  
MAYER WINDING MACHINE (4 sets)



玛格纳特缠绕机 (4盘1台/6盘1台)  
Magnatech Spiral Machine



导线机 (4台)  
Magnatech Wire Winding Machine (4 sets)

**现年产量：**编织管500万米，规格为5mm-25mm。

**Current annual capacity:** 5 million meters of braided hoses, with the size of 5mm to 25mm.

**规划年产能：**2000万米编织管，规格5mm-76mm; 1000万米缠绕管，规格为6mm-76mm。

**Planned annual capacity:** 20 million meters of braided hoses, with the size of 5mm to 76mm;  
10 million meters of spiral hoses, with the size of 6mm to 76mm.

## PRODUCTION LINES 现场生产



软芯编织生产线  
Flex Mandrel Braiding Line



硬芯编织/缠绕生产线  
Rigid Mandrel Braiding / Spiral Line



硬芯挤出生产线  
Rigid Mandrel Extruding Line



硬芯硫化生产线 (63米硫化缸)  
Rigid Mandrel Line Autoclave (63m)

## NINGBO TIP RUBBER TECHNOLOGY CO.,LTD

宁波市天普橡胶科技股份有限公司



- Established in 1994, the plant is located at Xinxing Industrial Zone of Ninghai Ningbo.
- The footprint is 20,000m<sup>2</sup>, and building area is 20,000m<sup>2</sup>.
- Research and development and production of cooling system hoses, rubber sealing products for passenger cars.

成立于1994年，工厂位于宁波市宁海县新兴工业园区  
占地20000平方，建筑20000平方  
研发生产乘用车用冷却系统管路、橡胶密封制品

### PRODUCTS 产品



NISSAN WATER HOSE ASSEMBLY  
日产水管总成



NISSAN FUEL HOSE  
日产油管



NISSAN WATER HOSE  
日产水管



BOSCH SEAL  
博世密封圈

## NINGBO TIJ AUTOMOTIVE PARTS CO.,LTD

宁波市天基汽车零部件有限公司 / 天基炼胶中心



- Established in 2012, the plant is located at Binhai new zone of southern Ningbo.
- The footprint is 66,000m<sup>2</sup>, and building area is 66,000m<sup>2</sup>.
- Research and development and production of cooling system hoses, fuel system hoses, turbocharging system hoses for passenger cars.

成立于2012年，工厂位于宁波市南部滨海新区  
占地66000平方，建筑60000平方  
研发生产乘用车用冷却系统管路、燃油系统管路、涡轮增压系统管路

### PRODUCTS 产品



MAZDA WATER HOSE  
马自达水管



JMC WATER HOSE  
江铃水管



JMC FUEL HOSE  
江铃油管



JMC TURBO CHARGE HOSE  
江铃涡轮增压管

### TIJ RUBBER MIXING CENTER

It owns three 250E mixers, annual capacity of mixing A is 50,000tons.  
It owns two 110L mixers, annual capacity of mixing B is 10,000tons.  
拥有250E密炼机3台，年产5万吨A炼胶；拥有110L密炼机2台，年产1万吨B炼胶

### WORKSHOP 车间



TIJ RUBBER MIXING CENTER SYSTEM FUNCTION DIAGRAM  
天基炼胶中心系统功能框架图



MIXING A PRODUCTION LINES SKETCH  
A炼生产线条示意图



RUBBER MIXING WORKSHOP FIELD PICTURE  
炼胶车间现场图

## NINGBO TIP FLUID TECHNOLOGY CO., LTD

宁波市天普流体科技有限公司



- Established in 2018, the plant is located at Binhai New zone of Southern Ningbo.
- The footprint is 90,000 m<sup>2</sup>, and building area is 90,000 m<sup>2</sup>.
- Research and development and production of wire braided/spiral high pressure hoses and assembly for commercial vehicles, construction machinery and other hydraulic transmission systems.

成立于2018年，工厂位于宁波市南部滨海新区  
占地90000平方，建筑90000平方  
研发生产商用车、工程机械等液压传动系统的钢丝编织/缠绕高压管及总成

### PRODUCTS 产品



WIRE BRAIDED HOSE  
钢编织管



SPIRAL HOSE  
缠绕管



HYDRAULIC HOSE ASSEMBLY  
液压管总成



INDUSTRIAL PIPELINE  
工业管

## TIP INVESTMENT MANAGEMENT (SHANGHAI) CO.,LTD

天普投资管理（上海）有限公司



- Established in 2017, the plant is located in Jiading Shanghai.
- The footprint is 25,000m<sup>2</sup>, and building area is 40,000m<sup>2</sup>.
- R&D and manufacturing of braiding machines, winding machines, and robot manipulators.

成立于2017年，工厂位于上海嘉定工业区  
占地25000平方，建筑40000平方  
研发生产编织机/并丝机/机械手

### PRODUCTS 产品



BRAIDING MACHINE  
编织机



WINDING MACHINE  
并丝机



ROBOT MANIPULATOR  
机械手

## SHANGHAI TIP AUTOMOTIVE PARTS CO., LTD

上海天普汽车零部件有限公司 / 住理工天普汽车部件（上海）有限公司



- Established in 2007, the plant is located in Jinshan Shanghai.
- The footprint is 33,000m<sup>2</sup> and building area is 25,000m<sup>2</sup>.
- Research and development of passenger car cooling system, air conditioning system. Metal assembly of transmission system, rubber mixing center of special rubber.

成立于2007年，工厂位于上海市金山工业区亭卫公路  
占地33000平方，建筑25000平方  
研发生产乘用车用冷却系统、空调系统、传动系统的金属总成、特种橡胶的炼胶中心

### PRODUCTS 产品



WATER HOSE ASSEMBLY  
水管总成



FUEL HOSE ASSEMBLY  
油管总成



A/C HOSE ASSEMBLY  
空调管总成



METAL TUBE  
金属管

### SUMIRIKO TIP AUTOMOTIVE PARTS ( SHANGHAI ) CO.,LTD

Research and development and production of air conditioning tube, water hoses, fuel hoses, TOC pipes.  
研发生产空调管、水油管、燃油管、TOC管

### PRODUCTS 产品



A/C HOSE  
空调管



WATER HOSE  
水管



FUEL HOSE  
燃油管



TOC HOSE  
TOC管

## ZHEJIANG TIH PRECISION MACHINERY CO., LTD

浙江天绘精密机械有限公司



- Established in 2020, the plant is located at Binhai new zone of southern Ningbo.
- Building area is 11,640m<sup>2</sup>.
- Research and development and production of precision machined products.

成立于2020年，工厂位于宁波市南部滨海新区  
建筑11640平方  
研发生产精密机加工产品

### PRODUCTS 产品



HOSE FITTINGS  
软管接头



ADAPTER  
过渡接头1



ADAPTER  
过渡接头2



PRECISION PROCESSING COMPONENT  
精密加工件



## 宁波市天普流体科技有限公司 NINGBO TIP FLUID TECHNOLOGY CO., LTD

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