

1. "HIGH PRESSURE HYDRAULIC HOSE CONFORMING TO SAE100R2  
Hose size: 8mm (5/16") HOSE LENGTH: 10 M FITTINGS: Straight  
Female End Swivel Fitting with 24 Degree Cone Ring to Suit 24 Degree Flare End On Both  
Ends of Size M18x1.5 For Stand Pipe Dia of 8 mm.  
Working Pressure: 297 Bar, Testing Pressure: 595 Bar."
2. "HIGH PRESSURE HYDRAULIC HOSE CONFORMING TO SAE100R2  
Hose size: 12.5mm (1/2") HOSE LENGTH: 1000mm, FITTINGS: Straight Female End  
Swivel Fitting with 24 Degree Cone Ring to Suit 24 Degree Flare End On Both  
Ends of Size M24x1.5 For Stand Pipe Dia of 16 mm.  
Working Pressure: 245 Bar, Testing Pressure: 490 Bar."
3. "HIGH PRESSURE HYDRAULIC HOSE CONFORMING TO SAE100R2  
Hose size: 12.5mm (1/2") HOSE LENGTH: 1000mm , FITTINGS: Straight Female End  
Swivel Fitting with 24 Degree flare end on one side and other end 90 deg. bend  
female end swivel fitting with 24 deg. cone ring to suit with 24 deg. flare of  
Size M24x1.5 For Stand Pipe Dia of 16 mm.  
Working Pressure: 245 Bar, Testing Pressure: 490 Bar."
4. "HIGH PRESSURE HYDRAULIC HOSE CONFORMING TO SAE100R2  
Hose size: 12.5mm (1/2") HOSE LENGTH: 1500mm  
FITTINGS: Hose id-12.7mm(1/2") hose od-16mm length-1500mm fitting: straight  
female end swivel fitting with 24 degree cone  
to suit 24 degree flare end on both sides. both ends: m24 x 1.5 for stand pipe  
dia of 16mm  
Note: 1. Supply of hose to be with flat wire spring guard to act as abrading  
guard to protect the hose.  
2. Flat wire width: 9mm  
3. Space between wires: 5mm  
4. Thickness of wires: 1mm  
5. To arrest flat spring movement wire should be crimped along with sleeve of  
hose both ends.  
6. Working pressure: 245 bar, testing pressure: 490 bar."
5. "HIGH PRESSURE HYDRAULIC HOSE CONFORMING TO SAE100R2  
Hose size: 19 mm (3/4") HOSE Length: 1000mm  
Fittings: Straight Female End Swivel Fitting with 24 Degree Cone Ring to Suit  
24 Degree Flare End On Both Ends of M30x2 for Stand Pipe Dia of 20mm. Working  
Pressure: 157 Bar, Testing Pressure: 315 Bar."
6. "HIGH PRESSURE HYDRAULIC HOSE CONFORMING TO SAE100R2  
Hose size: 19 mm (3/4") HOSE Length: 1000mm  
Fittings: Straight Female End Swivel Fitting with 24 Degree flare end on one  
side and other end 90 deg. bend female end swivel fitting with 24 deg. cone ring  
to suit with 24 deg. flare of Size M30x2 for Stand Pipe Dia of 20mm. Working  
Pressure: 157 Bar, Testing Pressure: 315 Bar."
7. "HIGH PRESSURE HYDRAULIC HOSE CONFORMING TO SAE100R2  
Hose size: 19 mm (3/4") Length: 10000 mm (10 meter)  
Fittings: Straight Female End Swivel Fitting with 24 Degree Cone Ring to Suit  
24 Degree Flare End On Both Ends of M30x2 for Stand Pipe Dia of 20mm. Working  
Pressure: 157 Bar, Testing Pressure: 315 Bar."
8. "HIGH PRESSURE HYDRAULIC HOSE CONFORMING TO SAE100R2  
Hose size: 19 mm (3/4") Length: 1500mm  
Fittings: Straight Female End Swivel Fitting with 24 Degree Cone Ring to Suit  
with 24 Degree Flare End On Both Ends of M30x2 for Stand Pipe Dia 20mm On Both  
Sides. Working Pressure: 157 Bar, Testing Pressure: 315 Bar."
9. "HIGH PRESSURE HYDRAULIC HOSE CONFORMING TO SAE100R2  
Hose size: 19 mm (3/4") Length: 2000mm  
Fittings: Straight Female End Swivel Fitting with 24 Degree Cone Ring to Suit  
with 24 Degree Flare End On Both Ends of M30x2 for Stand Pipe Dia 20mm On Both  
Sides.

Working Pressure: 157 Bar, Testing Pressure: 315 Bar."

10. "HIGH PRESSURE HYDRAULIC HOSE CONFORMING TO SAE100R2  
Hose size: 19 mm (3/4")Length: 2300mm  
Fittings: Straight Female End Swivel Fitting with 24 Degree Cone Ring to Suit with 24 Degree Flare End On Both Ends of M30x2 for Stand Pipe Dia 20mm On Both Sides.Working Pressure: 157 Bar, Testing Pressure: 315 Bar."
11. HIGH PRESSURE HYDRAULIC HOSE CONFORMING TO SAE100R2  
Hose size: 19 mm(3/4")Length: 1500mm  
Fittings: Straight female end swivel fitting with 24 deg. cone ring to suit with 24 Degree flare end on both ends of M36x2 for stand pipe dia 25mm on both sides.Working Pressure: 157 Bar, Testing Pressure: 315 Bar."
12. "HIGH PRESSURE HYDRAULIC HOSE CONFORMING TO SAE100R2  
Hose size:25 mm (1") Length: 1500mm  
Fittings: Straight female end swivel fitting with 24 deg.cone ring to suit With 24 Degree flare end on both ends of size M42x2 for stand pipe dia 30mm on both sides. Working Pressure: 140 Bar, Testing Pressure: 280 Bar."
13. "HIGH PRESSURE HYDRAULIC HOSE CONFORMING TO SAE100R2  
Hose size:25 mm (1")Length: 3000mm  
Fittings: Straight female end swivel fitting with 24 deg.cone ring to suit With 24 Degree flare end on both ends of size M42x2 for stand pipe dia 30mm on both sides. Working Pressure: 140 Bar, Testing Pressure: 280 Bar."
14. "HIGH PRESSURE HYDRAULIC HOSE CONFORMING TO SAE100R2  
Hose size:25 mm (1")Length: 1000mm  
Fittings: Straight female end swivel fitting with 24 deg.cone ring to suit With 24 Degree flare end on both ends of size M42x2 for stand pipe dia 30mm on both sides. Working Pressure: 140 Bar, Testing Pressure: 280 Bar."
15. "HIGH PRESSURE HYDRAULIC HOSE CONFORMING TO SAE100R2  
Hose size:25 mm (1") Length: 2300mm  
Fittings: Straight female end swivel fitting with 24 deg.cone ring to suit With 24 Degree flare end on both ends of size M42x2 for stand pipe dia 30mm on both sides. Working Pressure: 140 Bar, Testing Pressure: 280 Bar.  
"
16. "HIGH PRESSURE HYDRAULIC HOSE CONFORMING TO SAE100R2  
Hose size: 38mm (1 1/2") Length: 1000mm  
Fittings: Straight female end swivel fitting with 24 deg.cone ring to suit with 24 Degree flare end on both ends of size M52x2 for stand pipe dia 38mm on both sides.Working Pressure: 87 Bar, Testing Pressure: 175 Bar."
17. "HIGH PRESSURE HOSE CONFIRMING TO SAE 100R2  
Hose size: 38 mm (1 1/2") Length :1500mm  
Fittings: Straight Female End Swivel Fitting with 24 Degree flare end on one side and other end 90 deg.bend female end swivel fitting with 24 deg.cone ring to suit with 24 deg.flare of Size M52X2 For Stand Pipe Dia of 38 mm.  
Working Pressure: 87 Bar, Testing Pressure: 175 Bar. "
18. "HIGH PRESSURE HOSE CONFORMING TO SAE 100R2  
Hose size: 38 mm (1 1/2") Length: 2000mm  
Fittings: Straight female end swivel fitting with 24 deg.cone ring to suit with 24 Degree flare end on both ends of size M52x2 for stand pipe dia 38mm on both sides.  
Working Pressure: 87 Bar, Testing Pressure: 175 Bar. "
19. "HIGH PRESSURE HOSE CONFIRMING TO SAE 100R2.  
Hose size: 38 mm (1 1/2") Length: 3000mm

Fittings: Straight female end swivel fitting with 24 deg.cone ring to suit with 24 Degree flare end on both ends of size M52x2 for stand pipe dia 38mm on both sides.

Working Pressure: 87 Bar, Testing Pressure: 175 Bar. "

20. "Hose size: 12.5 mm(1/2")  
Length: 1000mm  
STAINLESS STEEL FLEXIBLE CORRUGATED HOSE WITH BRAIDED. Nominal dia: 13mm  
Length: 1000mm Fittings: Straight female end swivel fitting with 24 deg.Flare to suit 24 deg.Flare end on both sides of size 1/2"BSP. Application : To transport headed LSHS,LDO,SKO. Temperature: 250 deg.c Min.bend radius: 25mm  
Working pressure: 10kg/sq.cm Testing pressure: 20kg/sq.cm"
21. "HIGH PRESSURE HOSE CONFIRMING TO SAE 100R3.  
Hose size: 19 mm(3/4")Length: 1500mm  
Nominal dia: 19.0mm Length: 1500mm Fittings: Straight female end swivel fitting with 24 deg.cone ring to suit 24 deg.flare end on one side of size M30x2 to suit stand pipe dia 22mm and 3/4" BSP male thread on other side. Working pressure:52 Bar, Testing Pressure:105 Bar."
22. "HIGH PRESSURE HYDRAULIC HOSE CONFORMING TO SAE100R3  
Hose size: 12.5mm (1/2") HOSE LENGTH: 10 M  
FITTINGS: Straight Female End Swivel Fitting with 24 Degree Cone Ring to Suit 24 Degree Flare End On Both Ends of Size M18x1.5 For Stand Pipe Dia of 12 mm.  
Working Pressure: 70 Bar, Testing Pressure: 140 Bar."
23. PVC WITH NYLON BRAIDED HOSE, SIZE:ID - 1/2", WORKING PR.- 6 KG/SQ.CM,EACH PACK SHALL BE IN 50 METER REQUIRED.
24. PVC WITH NYLON BRAIDED HOSE, SIZE:ID - 3/4", WORKING PR.- 6 KG/SQ.CM,EACH PACK SHALL BE IN 50 METER REQUIRED.
25. "HOSE CLIP (HEAVY DUTY) BS5315:1991 OR EQUIVALENT, TYPE: WORM & WORM WHEEL SIZE: 1/2",MATERIAL: MILD STEEL ZINC COATED."
26. "HOSE CLIP (HEAVY DUTY) BS5315:1991 OR EQUIVALENT, TYPE: WORM & WORM WHEEL SIZE: 3/4",MATERIAL: MILD STEEL ZINC COATED."
27. "HOSE CLIP (HEAVY DUTY) BS5315:1991 OR EQUIVALENT, TYPE: WORM & WORM WHEEL SIZE: 1",MATERIAL: MILD STEEL ZINC COATED."
28. "HOSE CLIP (HEAVY DUTY) BS5315:1991 OR EQUIVALENT, TYPE: WORM & WORM WHEEL SIZE: 1 1/4",MATERIAL: MILD STEEL ZINC COATED."
29. "HOSE CLIP (HEAVY DUTY) BS5315:1991 OR EQUIVALENT, TYPE: WORM & WORM WHEEL SIZE: 1 1/2",MATERIAL: MILD STEEL ZINC COATED."

## **TECHNICAL DELIVERY CONDITION FOR HIGH PRESSURE HYDRAULIC HOSES:**

DOC NO: HMM/01/2023-24

SSTP/BHEL-TRICHY

### **Pressure Rating of Hoses:**

Pressure rating of hoses as per the below mentioned table shall be strictly followed. SAE 100R2 is structured with 2-wire braided steel wire reinforcement. SAE 100R3 is structured with Double Fiber Braided (Nonmetallic) reinforcement.

**TABLE-1:**

<b>Sl no</b>	<b>SAE standard category</b>	<b>Hose Size (Inches)</b>	<b>Working Pressure (Bar)</b>	<b>Testing Pressure (Bar)</b>
1	SAE 100R2	5/16	297	595
2	SAE 100R2	1/2	245	490
3	SAE 100R2	3/4	157	315
4	SAE 100R2	1	140	280
5	SAE 100R2	1 1/2	87	175
6	SAE 100R3	1/2	70	140
7	SAE 100R3	3/4	57	105

### **Testing procedure:**

Vendor should check the Hoses in their test rig for rated testing pressure as per sizes mentioned in Table-1. Inspection report for testing of hoses in their workshop shall be submitted. Inspection of hoses will be carried out in M/S BHEL- SSTP test rig and if any hoses get damaged during checking all the hoses in that material code will be rejected.

### **Identification:**

BHEL Material code, WP in Bar and size of hose in inches should be stamped/engraved in all hoses metal area. Tagging of hoses is not allowed. Hose without identification will be rejected.

**BID NO:**

**DT:**

**PRE-QUALIFICATION CRITERIA**

SN	Pre-Qualification criteria	Vendor's confirmation
1	The bidder must have supplied SAE 100 R2, R3 or equivalent standard hoses to qualify for SL NO-10 to 220. The bidder shall submit previous Purchase Order supplied to Central/State Govt./PSU company/Private organization during the last five years along with the documentary evidence (Eg: Invoice copy, Delivery challan etc.) for supply of material satisfying the above criteria.	

Above mentioned criteria to be confirmed by the vendor. In case of failure, offer will be rejected.

This document with supporting documents is to be submitted along with the offer.