

WHEN IT'S A QUESTION
OF SAFETY

**THINK
SAFETY!**



YOU CAN TRUST
GATES



First company in India to be accorded DGMS approval for Double wire braided
hose 4 & 6 Spiral Hose for underground machineries used in Coal Mines

MINING HOSE

Exceeds BCS 174 : 1992 Performance
Meets Flame Resistance Acceptance Designation "U.S. MSHA 2G"

Exceeds 2,00,000 (Two Lakh)
Impulse Cycles under
BCS 174 : 1992 condition
when tested at
DRDO, R&Di, Dighi,
Ministry of Defence Lab.



Revolutionary design tailored
to markets served

Recommended for

High pressure hydraulic lines in longwall mining equipment and roof-support systems/petroleum based or water emulsion fluids.

Tube

Black, oil-resistant synthetic rubber (Nitrile)

Reinforcement

Two braids of high tensile steel wire.

Cover

Black, Oil and abrasion and flame resistant synthetic rubber (Modified Nitrile)

Temperature Range

- 40°C to + 100°C

Description	Hose I.D.		Hose O.D.		Working Pressure				Minimum Burst Pressure		Minimum Bend Radius	
					Dynamic		Static					
	Inch	mm	Inch	mm	psi	bar	psi	bar	psi	bar	Inch	mm
DN6 Mining Hose	¼	6.3	0.67	17.0	6,525#	450	11,050†*	761	26,100	1800	4.0	101
DN10 Mining Hose	⅜	9.5	0.85	21.5	5,500#	380	9,525†*	656	22,000	1520	5.1	130
DN12 Mining Hose	½	12.7	1.04	26.5	5,250#	362	6,400†	441	21,000	1448	6.0	152
DN20 Mining Hose	¾	19.8	1.33	33.7	4,000#	276	4,950†	341	16,000	1104	9.1	230
DN25 Mining Hose	1	25.3	1.60	40.7	3,125#	215	3,775†	260	12,500	861	12.0	305
DN32 Mining Hose	1¼	32.0	1.87	47.5	2,500#	172	2,900†	200	10,000	689	15.1	381
DN40 Mining Hose	1½	38.0	2.16	54.0	2,118#	146	2,541†	175	8,472	584	18.0	450
Dn50 Mining Hose	2	51.0	2.40	67.0	1625#	112	1,900†	131	6,500	448	24.0	600

BCS 174: 1992 qualification requires 100,000 Impulse Cycles at 133% of the dynamic working pressure at 55° Fluid Temp AT 35 ± 5 cycle per minute.

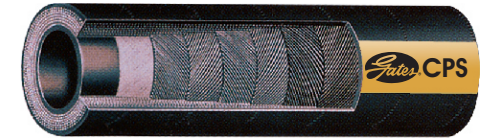
*Meets BCS 174:1992 Powered Roof Support Leg yield circuit specification.

†Static working pressure means very little pressure surging. BCS 174 : 1992 says that the internal hydraulic circuit of Roof Support Systems represents an almost steady state condition with little or no dynamic loading, and hoses consequently will tolerate higher ratings. Determined by EN 853-2SN, it is the allowable working pressure under static load approximates a 1:2.5 ratio to Burst Pressure. This is based on the EN Specification burst pressures and not the higher. Gates minimum Burst Pressure is listed in the table above. Gates minimum Burst Pressure listed in the table above is in line with BCS 174-1992 specification.

Coal Power/Longwall Mine Hose CPS-

Coal Power - 4- and 6- Spiral Wire
Meets Performance Requirement of SAE 100 R13
Meets Flame Resistance Acceptance Designation "U.S. MSHA 2G"

Exceeds 1 Million
Impulse Cycle under
SAE 100 R13 Test
conditions when
tested at DRDO,
R&Di, Dighi, Ministry
of Defence, Test Lab.



Gates Proprietary Hose
Revolutionary design tailored
to markets served

Recommended for :

High Pressure lines in longwall mining equipment and roof-support system; petroleum- based or water emulsion fluids.

Tube

Black, oil-resistant synthetic rubber. (Neoprene)

Reinforcement

Four layers of alternated, spiraled High tensile steel wire over a layer of fabric on 3/4" and 1" size; six layers of alternated spiraled, high tensile steel wire over a layer of fabric on 1¼", 1½" and 2" sizes.

Cover

Black, oil and abrasion resistant Synthetic rubber (Neoprene). Yellow layline stripe. Also available with abrasion resistant MegTuff® cover.

Temperature Range

-40°C + 121°C

Description	Hose I.D.		Hose O.D.		Rated Working Pressure				Minimum Burst Pressure		Minimum Bend Radius	
					Dynamic		Static					
	Inch	mm	Inch	mm	psi	bar	psi	bar	psi	bar	Inch	mm
12 CPS	¾	19.05	1.27	32.3	5,000#	345	6,700†	462	20,000	1379	9.5	241
16 CPS	1	25.40	1.53	38.9	5,000#	345	6,000†	414	20,000	1379	12.0	305
20 CPS	1¼	31.75	1.97	50.0	5,000#	345	6,000†	414	20,000	1379	16.5	419
24 CPS	1½	38.10	2.28	57.9	5,000#	345	6,000†	414	20,000	1379	20.0	508
32 CPS	2	50.80	2.81	71.4	5,000#	345	6,000†	414	20,000	1379	25.0	635

SAE 100 R13 qualification requires 500000 (half of 1 Million) Impulse Cycle at 120% of the dynamic working pressure at 121 degree Fluid Temp.

Meets or Exceeds the DIN (Deutsche Industries Norm) 20023/Jan.1985 dynamic working pressure.

†Where pressure surges are minimal, e.g. Power Roof support applications.

WORLD CLASS FEATURES

- Approved by **Director General of Mines Safety (DGMS)**, Gates hoses are being supplied to prestigious customers viz. Subsidiary companies of **Coal India Ltd.** and **Singareni Collieries** as well as OEMs like **Eimco Elecon** amongst others.
- Complete solutions for hydraulic systems, specially designed for underground machinery and equipment used in mines.
- Made to withstand tough and tortuous Indian mining conditions.
- Extra tough cover to protect from external abrasion and accidental damages.
- Highly flexible design prevents twisting, kinking and vibration.
- High Safety Factor, Ozone & Weather resistant.
- Available with staple lock couplings for quick replacement in the event of a hose failure - meaning minimal downtime.
- Regardless of underground or surface mining applications all Gates hydraulic hoses are flame resistant meeting Flame Resistance Acceptance Designation "U.S. MSHA 2G".
- Thin Cover Mining Hoses manufactured with the latest technology are also available for easy crimping without skiving.
- **GATES MINING HOSE** : DGMS approved, the only double wire braided Mining Hose that exceeded 2 Lakh impulse life cycle when tested under BCS 174: 1992 condition at DRDO, R&Di, Ministry of Defence Test Lab at Dighi which is DGMS approved Test lab also, whereas specification is 1 lakh Impulse Cycle.
- **GATES CPS HOSE** : DGMS approved the only 4 & 6 spiral hose that exceeded 1 Million (10 lakh) Impulse Life Cycle under SAE 100 R13 condition when tested at DRDO, R&Di, Ministry of Defence Test Lab at Dighi which is DGMS approved Test lab also, whereas specification is 5 lakh Impulse Cycle.



The World's Most Trusted Name in Hose and Connectors



A **Torqline** Company

Gates India Pvt. Ltd.

Ambala-Chandigarh Highway, Lalru - 140 501 (Punjab)

Tel : 01762-506888, 506889, 506631, 506632 **Fax** : 01762-506833

E-mail : customer@gatesind.com, **website** : www.gatesind.com

Customer Care : **Tel** : 01762-506886, 93560 69105, 93560 69106

Sales & Service

	Ahmedabad	Bangalore	Hyderabad	Kolkata	Mumbai	New Delhi
Mobile	99795-41028	99808-06613	99630-11126	98306-94824	98210-43574	98110-06873
Tele-fax				033-25349920	022-55980388	0120-3945186