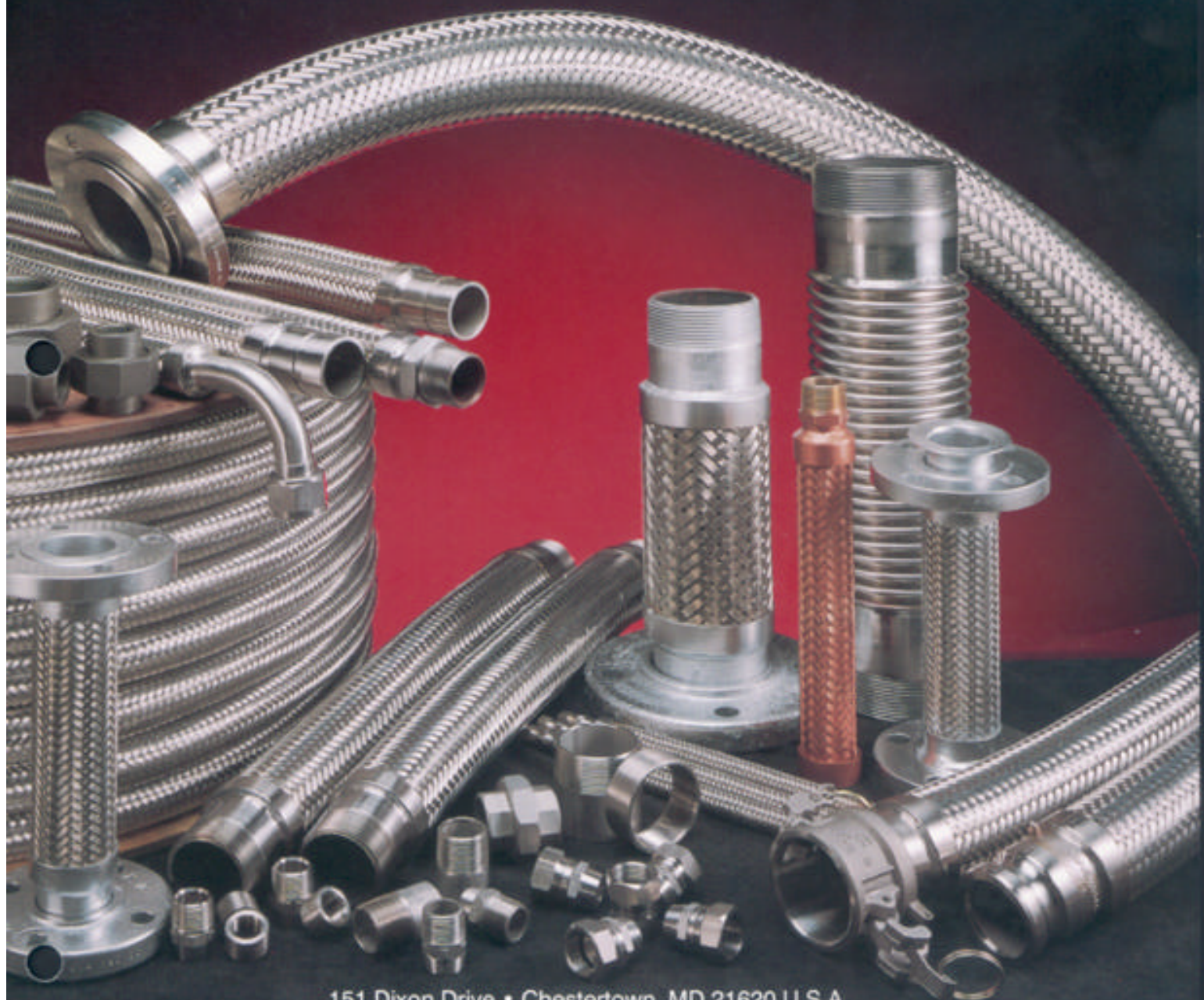


InteMetal Hose

a Division of GSM Industries, Inc.

Fabricated Metal Hose for Demanding Applications



151 Dixon Drive • Chestertown, MD 21620 U.S.A.
Phone: 410-778-5666 • Toll Free: 888-226-HOSE • Fax: 410-778-1958
www.gsmindustries.com

Metal hose is used when temperature extremes, corrosive media or permeation preclude the use of rubber, PTFE (Polytetrafluoroethylene) or plastic hose. Typical applications are found in steel making, chemical processing, paper manufacturing, petroleum refining and in numerous other industrial applications.

InteMetal Hose fabricates only quality metal hose assemblies. A wide range of standard as well as custom designed connections are available. For superior service and delivery, along with competitive pricing, contact our sale offices immediately.

InteMetal Hose Technical Information

Inside Diameter	Number of Braids	Outside Diameter	Static Min. Bend Radius	Dynamic Min. Bend Radius	Working Pressure (PSI)	Burst Pressure (PSI)	Weight Per Foot (Lbs.)
3/8"	0	0.65"	1.2"	5.0"	70	6230	0.10
	1	0.71"			1558		0.20
	2	0.77"			2336		0.30
1/2"	0	0.77"	1.5"	5.5"	70	4743	0.11
	1	0.83"			1186		0.22
	2	0.89"			1779		0.33
5/8"	0	0.96"	1.8"	7.0"	57	4820	0.17
	1	1.02"			1205		0.33
	2	1.08"			1808		0.49
3/4"	0	1.16"	2.1"	8.0"	43	3591	0.19
	1	1.22"			898		0.37
	2	1.28"			1347		0.55
1"	0	1.47"	2.7"	9.0"	43	2872	0.26
	1	1.53"			718		0.50
	2	1.59"			1077		0.74
1 1/4"	0	1.75"	3.1"	10.0"	43	2581	0.29
	1	1.83"			645		0.61
	2	1.91"			968		0.93
1 1/2"	0	2.08"	3.9"	11.0"	28	2125	0.47
	1	2.16"			531		0.85
	2	2.24"			797		1.23
2"	0	2.61"	5.1"	13.0"	14	1797	0.59
	1	2.69"			449		1.11
	2	2.77"			674		1.63
2 1/2"	0	3.40"	6.8"	16.0"	14	1669	0.84
	1	3.50"			417		1.64
	2	3.60"			626		2.44
3"	0	3.88"	7.8"	18.0"	14	1384	1.18
	1	3.98"			346		2.06
	2	4.08"			519		2.94
4"	0	4.96"	9.8"	22.0"	14	1194	1.41
	1	5.06"			299		2.47
	2	5.16"			448		3.53
5"	0	6.00"	12.8"	28.0"	14	1099	2.18
	1	6.13"			275		3.61
	2	6.25"			412		5.04
6"	0	7.01"	14.8"	32.0"	11	839	2.69
	1	7.14"			210		4.44
	2	7.26"			315		6.19

NOTES: The minimum bend radius is measured from the center line of the hose.

The minimum bend radius increases with pressure.

The working pressure decreases with temperature.

Distributed By:



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GSM Hose Design and Critical Risk Factors



GSM NOT FLEXED

- dual half oval spirals
- galvanized steel (stainless or aluminum available)
- ball-joint, overlapping surfaces
- no interlocking or corrugations to inhibit flexing



GSM FLEXED

- convex surfaces glide over each other
- inner hose will not kink or collapse
- superior bending radii
- multiple plane bending permitted



INNER HOSE is designed for material to be handled: steam, water, oxygen, chemicals, hydraulic fluids, etc. Tube will be compatible with medium being transferred.

WORKING PRESSURE of hose will be designed to meet application.

INSULATION, composed of various layers, protects the assembly from external heat.

BALL-JOINT ARMOR of galvanized, stainless steel or aluminum offers resistance to external abuse, kinking and heat.

GSM Hose for the Basic Oxygen Furnace (BOF),

The concept of injecting oxygen directly into molten steel is a common metallurgical process. However, when the first Basic Oxygen Furnaces were constructed, a reliable connector to the lance was a question mark: GSM BASIC OXYGEN FURNACE (BOF) HOSE was the answer. GSM hose was installed as a first prototype and the first blow was highly successful. The flow through the hose was so silent that observers thought the system was not operating. The durability of the hose was beyond compare.



GSM Oxygen and Water Hose in service on a Basic Oxygen Furnace.



GSM performing in the Basic Oxygen Furnace in supplying oxygen to the bath and circulating water as a coolant. GSM, Inc. is credited with a technological breakthrough in developing the oxygen hose for this demanding, potentially dangerous service.

GSM Basic Oxygen Furnace Hose is a highly engineered quality product designed to meet the exact needs of the mills' furnace. Type of connections, flexing extremes, working pressures and length are calculated to make the finest hose on the market today. GSM Basic Oxygen Furnace Hose is pressure tested, cleaned, black-light tested and capped, ready for immediate placement in service.

... Continuous Casters,

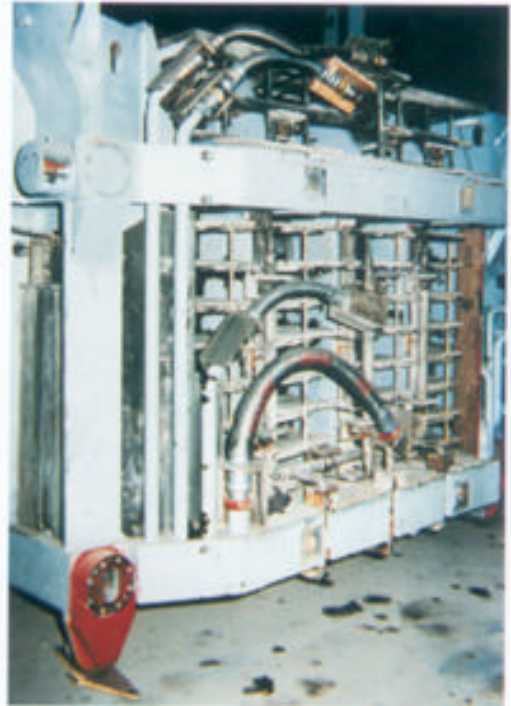
Continuous casting is an essential processing step in modern steel plants. Whether molten steel is cast directly into slabs, billets or blooms, the process is continuous and can afford no down time. GSM hose is an essential link in the water cooling systems, hydraulic systems and stirring processes of the continuous casting mechanics.

Applications include:

- GSM Mold and "O" Segment Water Hoses
- GSM Spray Chamber Water Hose
- GSM Tundish Hose
- GSM Argon Stirring Hose
- GSM Slide-Gate Hydraulic Hose
- GSM Straightner Hydraulic Hose
- GSM Torch Cut-Off Hose
- GSM Run-Out Table Hydraulic Hose
- GSM Bender Water Cooling Hose



GSM Hydraulic Hose activates slide gate system on the tundish.



GSM Water Hose on repaired bender section under the mold on caster.



GSM Hydraulic Hose from the turret arm, activating the slide gate on the ladle.

... The Electric Arc Furnace,

The Electric Arc Furnace (EAF) has many applications for GSM hose. An efficient water cooling system is a must for any Electric Arc Furnace. With expansion and contraction of piping systems and movement of the roof, GSM hose gives you the degree of confidence needed in any maintenance program.

Presently, GSM hose is found in the following installations on the EAF:

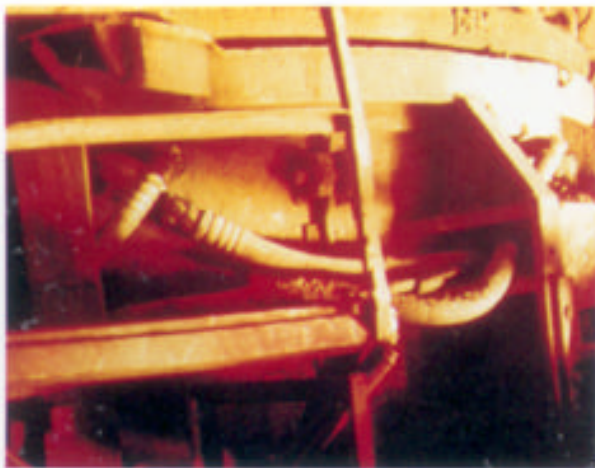
- GSM Panel Hose (Water)
- GSM Main Water Supply Hose (Feed/Return)
- GSM Roof Hose (Water)
- GSM Tilt Cylinder Hose (Hydraulic)
- GSM Furnace Door Hose (Water)
- GSM Oxy/Fuel Burner Hose
- GSM Argon Stirring Hose



GSM Water Feed/Return Lines can range from 3" to 8" inside diameter.



GSM Tilt Cylinder Hydraulic Hose resists sparks and slag from furnace above.



The side panels of the Electric Furnace are an ideal application for GSM hose



GSM Oxy-Fuel Burner Hose can withstand extreme abuse, while also providing a safe working environment