

SCHED. 40 NIPPLES | BLACK & GALVANIZED



2in Diameter Schedule 40 Nipples

MIP x MIP

BULK PART NUMBER

Length	Black	Galvanized	Inner	MC
Close	588-001	568-001	25	-
2-1/2in	588-025	568-025	25	-
3in	588-030	568-030	25	-
3-1/2in	588-035	568-035	25	-
4in	588-040	568-040	25	-
4-1/2in	588-045	568-045	25	-
5in	588-050	568-050	25	-
5-1/2in	588-055	568-055	25	-
6in	588-060	568-060	25	-
7in	588-070	568-070	10	-
8in	588-080	568-080	10	-
9in	588-090	568-090	10	-
10in	588-100	568-100	10	-
11in	588-110	568-110	10	-
12in	588-120	568-120	10	-

BARCODED PART NUMBER

Length	Black	Galvanized	Inner	MC
Close	588-001HC	568-001HC	5	40
2-1/2in	588-025HC	568-025HC	5	40
3in	588-030HC	568-030HC	5	40
3-1/2in	588-035HC	568-035HC	5	30
4in	588-040HC	568-040HC	5	30
4-1/2in	588-045HC	568-045HC	5	20
5in	588-050HC	568-050HC	5	20
5-1/2in	588-055HC	568-055HC	5	20
6in	588-060HC	568-060HC	5	20
7in	588-070HC	568-070HC	5	20
8in	588-080HC	568-080HC	5	20
9in	588-090HC	568-090HC	5	20
10in	588-100HC	568-100HC	5	20
11in	588-110HC	568-110HC	5	10
12in	588-120HC	568-120HC	5	10

3in Diameter Schedule 40 Nipples

MIP x MIP

BULK PART NUMBER

Length	Black	Galvanized	Inner	MC
Close	590-001	570-001	10	-
3in	590-030	570-030	10	-
3-1/2in	590-035	570-035	10	-
4in	590-040	570-040	10	-
4-1/2in	590-045	570-045	10	-
5in	590-050	570-050	10	-
5-1/2in	590-055	570-055	10	-
6in	590-060	570-060	10	-
7in	590-070	570-070	5	-
8in	590-080	570-080	5	-
9in	590-090	570-090	5	-
10in	590-100	570-100	5	-
11in	590-110	570-110	5	-
12in	590-120	570-120	5	-

BARCODED PART NUMBER

Length	Black	Galvanized	Inner	MC
Close	-	-	-	-
3in	-	-	-	-
3-1/2in	-	-	-	-
4in	-	-	-	-
4-1/2in	-	-	-	-
5in	-	-	-	-
5-1/2in	-	-	-	-
6in	-	-	-	-
7in	-	-	-	-
8in	-	-	-	-
9in	-	-	-	-
10in	-	-	-	-
11in	-	-	-	-
12in	-	-	-	-



SECTION 04 **PRODUCT** **SPECIFICATIONS**

Southland only provides the best in high-quality materials. In order to achieve this we rigorously test all products to many exacting standards so they perform to your needs every time.

Fittings & Nipple Specs044

- Finishes

Additional Nipple Specs045

- Construction
- Material
- Threading





FINISHES

Black, Galvanized and Their Designed Applications

Our fittings, nipples and pipes are offered in three finishes: Black, Galvanized and Red Brass. Each finish offers unique application advantages over each other making them ideal for particular projects.

BLACK FINISH

Accessories with black finish are generally used for lubricant oil, grease, LP gas, natural gas, gases (nitrogen, oxygen, etc.), steam and diesel. This finish is best suited for normal use where an inner rustproof protection is not required.

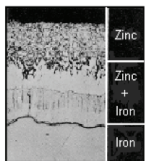
GALVANIZED FINISH

Our Galvanized Finish offering is used for hot and cold water systems, refrigeration, sprinklers, compressed air, gasoline, diesel, alcohol, and some other applications where conducted fluid needs inner rustproof protection.

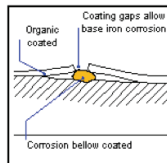
These fittings are manufactured by hot-dip galvanizing according to ASTM A-153. There are several ways to protect iron against rust, but none better than our hot-dip galvanizing process. Hot-dip galvanizing is one of the most efficient, practical and economical ways to protect iron and steel as zinc resists very well environment, air, and water corrosion for long lasting protection.

Galvanizing protects from corrosion the following ways:

- 1) It offers a long lasting isolating coverage made of metallic zinc and zinc alloy expertly applied to our iron.
- 2) Since zinc is bonded to iron as part of the iron-zinc combination, the protection works at a molecular level throughout the union. This serves as both a mechanical and corrosion protector.

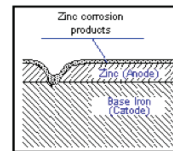


Zinc resists the environment's corrosive actions. Opposite to this, most of the organic coatings (paintings) are environmentally unstable and need to be renewed frequently. When a little failure occurs, corrosion starts and it begins to become larger under the protective coating.



Cathodic iron protection, provided by the metallic zinc coating, is factually based on corrosion being an electro-chemical process.

As zinc is a highly active electrochemical element, it tends to absorb oxygen before iron does it. Furthermore, this condition



creates additional protection against zinc hydroxide. This cathodic protection prevents corrosion to exposed parts, due to any discontinuity or mechanical damage on the coating.



NIPPLE PRODUCTS

We manufacture threaded and flat end nipples with galvanized and black finishes alongside aluminum and brass options. Processed diameters range from 1/8-in to 6-in and lengths from close thread to 12-in for nipples with pipe lengths from 10 ft to 21-ft.

WELDED STEEL NIPPLE PRODUCTS

Offering includes:

- Schedule 40 Nipple, Black and Galvanized
- Schedule 80 Nipple, Black and Galvanized
- Galvanized Conduit Nipple (UL listed)

Normal applications for threaded product lines are steam, gas, water and compressed air. Schedule should be selected based on the conduction lines required pressure. Our galvanized conduit is best with metallic pipes used for installation of wires and cables.

Our welded steel nipples are manufactured to ASTM A733 and ASME B1.20.1 specifications. UL6 specification applies for galvanized conduit nipples.

SEAMLESS STEEL NIPPLE PRODUCTS

This nipple offering is manufactured with seamless steel pipe that complies with ASTM A106, Grade B standard.

- Schedule 40 Nipple, Black and Electro-galvanized (includes yellow-zinc finish)
- Schedule 80 Nipple, Black and Electro-galvanized (includes yellow-zinc finish)
- Schedule 160 Nipple, Black and Electro-galvanized (includes yellow-zinc finish)

These seamless nipples are ideal for high temperature service applications. Schedule should be selected based on the conduction lines required pressure.

Our seamless steel nipples are manufactured according to ASTM A733 and ASME B1.20.1 standards.

BRASS NIPPLES

Southland brass nipples are manufactured with ASTM B43 compliant brass tube.

Brass nipple applications include plumbing, heater lines, boilers and related purposes.

These are manufactured according to ASTM B687 and ASME B1.20.1 standards.



NIPPLE SPECIFICATIONS

Material, Mechanical & Chemical Properties

Southland nipples are manufactured to the exacting technical specs noted below. All nipple products undergo rigorous testing to help ensure guaranteed quality throughout all product groups.

MATERIAL SPECIFICATIONS

Our line of steel nipples and ready cut pipe is manufactured according to the strictest worldwide specifications. For this reason its response to corrosion, temperature and working pressures will be excellent, promoting long lasting and reliable fluid conduction systems.

MECHANICALS PROPERTIES

Welded steel pipe nipples and ready-cut pipe, schedule 40 & 80, ERW type (Electric Resistance Welded), Grade A are manufactured to the ASTM A-53 standard.

Seamless steel pipe nipples and ready-cut pipe, schedule 40, 80, 160 & XXS, Grade B are manufactured to the ASTM A-106 standard.

	GRADE A	GRADE B
Tensile strength	48,000 psi	60,000 psi
Yield strength	30,000 psi	35,000 psi
Elongation in 2 inches	$E = \frac{625000 \cdot A \cdot 0.2}{U \cdot 0.9}$	$E = \frac{625000 \cdot A \cdot 0.2}{U \cdot 0.9}$

CHEMICAL PROPERTIES

Chemical composition (%) – maximum values

	CARBON	COOPER A	NICKEL A	CHROME A	MOLYBDENUM A	VANADIUM A	MANGANESE	PHOSPHORUS	SULFUR
Grade A: A53	0.25%	0.4%	0.4%	0.4%	0.15%	0.08%	0.95%	0.05%	0.045%
Grade B: A106	0.30%	0.4%	0.4%	0.4%	0.15%	0.08%	0.29-1.06%	0.035%	0.035%

A – The combination of these 5 elements should not exceed 1.00%



PRESSURES

Maximum allowable working pressure - Grade A welded carbon steel pipe threaded nipples.

Size	Depth Thread	OD	Wall Thickness	Schedule	-20°-100°F (PSI)	200°F (PSI)	300°F (PSI)	400°F (PSI)	500°F (PSI)	600°F (PSI)	650°F (PSI)
1/8-in	0.027	0.405	0.068	40	2948	2948	2948	2948	2948	2782	2702
	0.027	0.405	0.095	80	5222	5222	5222	5222	5222	4857	4756
1/4-in	0.046	0.540	0.088	40	2229	2229	2229	2229	2229	2084	2038
	0.046	0.540	0.119	80	4085	4085	4085	4085	4085	3823	3729
3/8-in	0.046	0.675	0.091	40	1897	1897	1897	1897	1897	1777	1739
	0.046	0.675	0.126	80	3547	3547	3547	3547	3547	3281	3229
1/2-in	0.054	0.840	0.109	40	1879	1879	1879	1879	1879	1747	1715
	0.054	0.840	0.147	80	3301	3301	3301	3301	3301	3067	3006
3/4-in	0.054	1.050	0.113	40	1601	1601	1601	1601	1601	1493	1454
	0.054	1.050	0.154	80	2795	2795	2795	2795	2795	2605	2555
1-in	0.066	1.315	0.133	40	1438	1438	1438	1438	1438	1335	1315
	0.066	1.315	0.179	80	2505	2505	2505	2505	2505	2320	2281
1-1/4-in	0.066	1.660	0.140	40	1254	1254	1254	1254	1254	1169	1145
	0.066	1.660	0.191	80	2172	2172	2172	2172	2172	2021	1980
1-1/2-in	0.066	1.900	0.145	40	1162	1162	1162	1162	1162	1086	1064
	0.066	1.900	0.200	80	2028	2028	2028	2028	2028	1883	1846
2-in	0.066	2.375	0.154	40	1034	1034	1034	1034	1034	964	940
	0.066	2.375	0.218	80	1834	1834	1834	1834	1834	1699	1660
2-1/2-in	0.096	2.875	0.203	40	1037	1037	1037	1037	1037	964	945
	0.096	2.875	0.276	80	1785	1785	1785	1785	1785	1657	1621
3-in	0.096	3.500	0.216	40	953	953	953	953	953	886	866
	0.096	3.500	0.300	80	1657	1657	1657	1657	1657	1537	1507
4-in	0.096	4.500	0.237	40	872	872	872	872	872	809	792
	0.096	4.500	0.337	80	1518	1518	1518	1518	1518	1408	1379
6-in	0.096	6.625	0.280	40	771	771	771	771	771	713	700
	0.096	6.625	0.432	80	1434	1434	1434	1434	1434	1328	1301



PRESSURES

Maximum allowable working pressure - Grade B seamless carbon steel pipe threaded nipples

Size	Depth Thread	OD	Wall Thickness	Schedule	-20°-100°F (PSI)	200°F (PSI)	300°F (PSI)	400°F (PSI)	500°F (PSI)	600°F (PSI)	650°F (PSI)
1/8-in	0.027	0.405	0.068	40	4338	4338	4338	4338	4153	3809	3754
	0.027	0.405	0.095	80	7736	7736	7736	7736	7344	6696	6557
1/4-in	0.046	0.405	0.088	40	3256	3256	3256	3256	3148	2878	2814
	0.046	0.540	0.119	80	5994	5994	5994	5994	5702	5251	5164
3/8-in	0.046	0.675	0.091	40	2785	2785	2785	2785	2666	2445	2392
	0.046	0.675	0.126	80	5184	5184	5184	5184	4945	4540	4434
1/2-in	0.054	0.840	0.109	40	2751	2751	2751	2751	2629	2403	2359
	0.054	0.840	0.147	80	4849	4849	4849	4849	4595	4213	4156
	0.054	0.840	0.188	160	7289	7289	7289	7289	6924	6337	6237
3/4-in	0.054	1.050	0.113	40	2342	2342	2342	2342	2241	2055	2019
	0.054	1.050	0.154	80	4110	4110	4110	4110	3905	3573	3504
	0.054	1.050	0.219	160	7183	7183	7183	7183	6805	6224	6112
1-in	0.066	1.315	0.133	40	2108	2108	2108	2108	2016	1844	1816
	0.066	1.315	0.179	80	3683	3683	3683	3683	3486	3194	3141
	0.066	1.315	0.250	160	6294	6294	6294	6294	5955	5464	5356
1-1/4-in	0.066	1.660	0.140	40	1835	1835	1835	1835	1747	1606	1572
	0.066	1.660	0.191	80	3204	3204	3204	3204	3027	2773	2730
	0.066	1.660	0.250	160	4852	4852	4852	4852	4591	4212	4145
1-1/2-in	0.066	1.900	0.145	40	1713	1713	1713	1713	1633	1496	1466
	0.066	1.900	0.200	80	2986	2986	2986	2986	2828	2590	2539
	0.066	1.900	0.281	160	4975	4975	4975	4975	4704	4313	4237
2-in	0.066	2.375	0.154	40	1521	1521	1521	1521	1445	1322	1297
	0.066	2.375	0.218	80	2699	2699	2699	2699	2556	2338	2295
	0.066	2.375	0.344	160	5165	5165	5165	5165	4878	4468	4391
2-1/2-in	0.096	2.875	0.203	40	1529	1529	1529	1529	1449	1328	1303
	0.096	2.875	0.276	80	2632	2632	2632	2632	2486	2275	2235
	0.096	2.875	0.375	160	4205	4205	4205	4205	3968	3641	3574
3-in	0.096	3.500	0.216	40	1402	1402	1402	1402	1333	1216	1199
	0.096	3.500	0.300	80	2439	2439	2439	2439	2306	2111	2076
	0.096	3.500	0.438	160	4229	4229	4229	4229	4007	3666	3600
4-in	0.096	4.500	0.237	40	1280	1280	1280	1280	1213	1112	1093
	0.096	4.500	0.337	80	2235	2235	2235	2235	2114	1932	1903
	0.096	4.500	0.531	160	4187	4187	4187	4187	3961	3620	3560
6-in	0.096	6.625	0.280	40	1133	1133	1133	1133	1071	981	965
	0.096	6.625	0.432	80	2110	2110	2110	2110	1998	1826	1797
	0.096	6.625	0.719	160	4065	4065	4065	4065	3840	3517	3454



THREADS

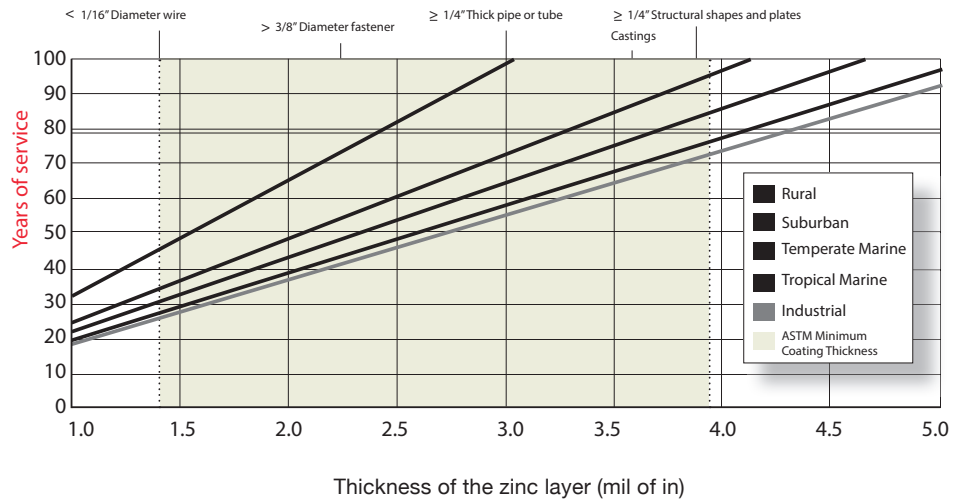
Our products comply with ASME B1.20.1 standard.

NOMINAL PIPE SIZE	OUTSIDE DIAMETER	THREADS PER INCH	PITCH OF THREAD	HANDTIGHT ENGAGEMENT		EFFECTIVE THREAD		OVERALL THREAD LENGTH	
				LENGTH		LENGTH		INCH	THREADS
				INCH	THREADS	INCH	THREADS		
1/8-in	0.4050	27	0.03704	0.1615	4.36	0.2639	7.12	0.3924	10.59
1/4-in	0.5400	18	0.05556	0.2278	4.10	0.4018	7.23	0.5946	10.70
3/8-in	0.6750	18	0.05556	0.2400	4.32	0.4078	7.34	0.6006	10.81
1/2-in	0.8400	14	0.07143	0.3200	4.48	0.5337	7.47	0.7815	10.94
3/4-in	1.0500	14	0.07143	0.3390	4.75	0.5457	7.64	0.7935	11.11
1-in	1.3150	12	0.08696	0.4000	4.60	0.6828	7.85	0.9845	11.32
1-1/4-in	1.6600	12	0.08696	0.4200	4.83	0.7068	8.13	1.0085	11.60
1-1/2-in	1.9000	12	0.08696	0.4200	4.83	0.7235	8.32	1.0252	11.79
2-in	2.3750	12	0.08696	0.4360	5.01	0.7565	8.70	1.0582	12.17
2-1/2-in	2.8750	8	0.12500	0.6820	5.46	1.1375	9.10	1.5712	12.57
3-in	3.5000	8	0.12500	0.7660	6.13	1.2000	9.60	1.6337	13.07
4-in	4.5000	8	0.12500	0.8440	6.75	1.3000	10.40	1.7337	13.87
6-in	6.6250	8	0.12500	0.9580	7.66	1.5125	12.10	1.9462	15.57



TABLE

Showing the Lifetime of Hot Dip Galvanized Products



RURAL:

This is the less aggressive environment since the presence of sulfurs and emissions are very low.

SUBURBAN:

These environments are less corrosive than industrial areas and, in general terms, are found in residential zones, peripheral communities, urban areas and cities without heavy industry.

TEMPERATE MARINE

These areas are close to the sea coast with temperate weather making them less corrosive than industrial areas.

TROPICAL MARINE:

These are hot weather areas considered as a less corrosive environment as they are typically located farther from industrial zones.

INDUSTRIAL:

Most cities and urban areas fall into this aggressive environment category as they contain sulfurs and phosphates.

