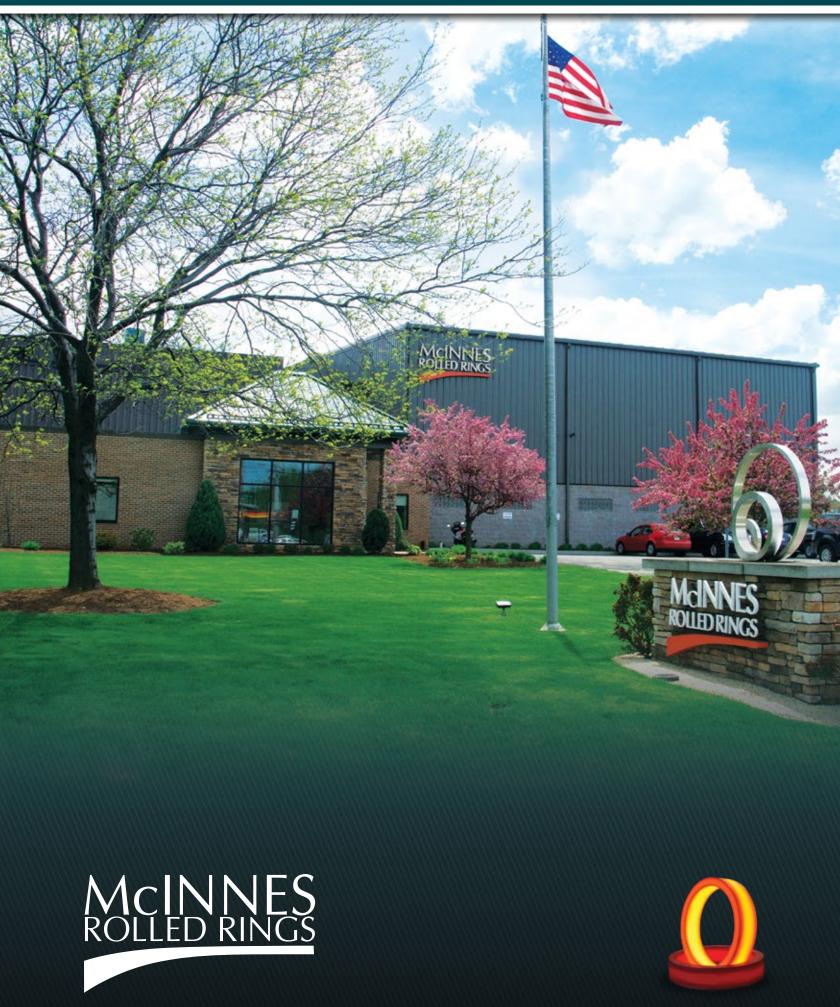
CARBON · ALLOY · STAINLESS





AT MCINNES, SEANLESS DESCRIBES MORE THAN JUST OUR RINGS.



FAST, SEAMLESS, PRECISE

As the industry leader in fast delivery, we specialize in seamless rolled rings from 4" – 144" diameters and forged discs up to 70" in a variety of carbon, alloy and stainless steels.

Our AS9100D / ISO 9001:2015 certified plant in Erie, Pennsylvania features the most advanced technology available to forge world-class seamless rings.

MCINNES SPEED

By combining the latest in ring rolling technology with experienced people, we offer the best value in our industry for steel rolled rings.

Our seamless ring rolling process produces a forged steel ring to tight tolerances, which provides for minimum material allowance and very little waste. What's more, we offer superior integrity for demanding engineering applications and provide an efficient alternative to fabricating rings from steel plate.

AS9100D / IS0 9001:2015 CERTIFIED

THE MCINNES PROCESS

Steel "blanks" are cut to size and loaded into one of a series of pre-heat furnaces. Once up to temperature, the blanks are delivered to our 1,200 ton or 3,500 ton hydraulic preform press where they are upset and pierced. The preform is then ready to be rolled on the ring mill. CRIE

ROLLING RINGS

At the heart of the operation are our Wagner RAW 63/63 and RAW 160/160 radial-axial rolling mills. Equipped with state-of-the-art computer-aided rolling systems, our rings are produced to your exact specifications with the most precise repeatability.

FORGED DISCS

Our forged discs are manufactured with the same precise and accurate tolerences as our rings. Our advanced equipment can produce discs up to 70" diameter and 12" in maximum height.

IN-HOUSE Heat treating

Heat treating is the final stage of the seamless rolled ring process. McInnes offers complete annealing, normalizing, quenching and tempering treatments to meet a desired combination of hardness and strength.

Rings are quenched in polymer or water to improve mechanical properties. Rings are removed from the furnace and quenched within seconds.

Rings with crisp, precise edges are hallmarks of the McInnes process.

Our efficient process makes ordering rings quick and simple—from quote to delivery.

SPECIFICATIONS AND MATERIALS

SIZE RANGE:

McInnes' state-of-the-art rolling system is capable of rolling rings from 4" to 144" and discs up to 70" diameter

WEIGHT RANGE:

50-9,000 pounds (23-4,082 kg)

HEAT TREATMENT:

Complete annealing, normalizing, quenching and tempering facilities

TESTING:

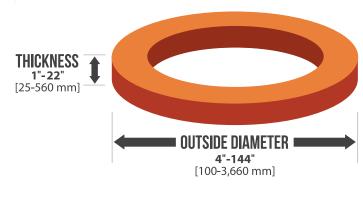
Destructive and nondestructive

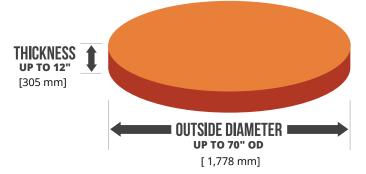
LABORATORY FACILITIES:

Available

MACHINING:

Available





-	CARBON			1-1
6	1010	1070)	
	1018	1552		1
	1020	ASTN	/I A105	
	1022	ASTN	/I A181 CL70	700
	1029	ASTN	/I A350 LF2	680 082
-	1030	ASTN	/I A350 LF6	CV
-	1035	ASTM A266 CL2		
2	1040	ASTN	/I A266 CL4	
	1045		/I A694	
367	1050		I YIELD - LOW C.E.	
	ALLOY			A Designed
2	3310		8822H	-
-	3311		9310	Conception and
	3312		ASTM A182 F5	
	4130		ASTM A182 F9	
2	4140		ASTM A182 F11	
	4145		ASTM A182 F22	
	4150 4170		Cr-Mo-V NiCrMoV	Sed Blarre
	4320		H-13	1 A SHARE
	4340		HY-100	
	4820H		600	
	HY-80		625	
	8620H		718	
	8630			

STAINLESS

300 SERIES 400 SERIES DUPLEX

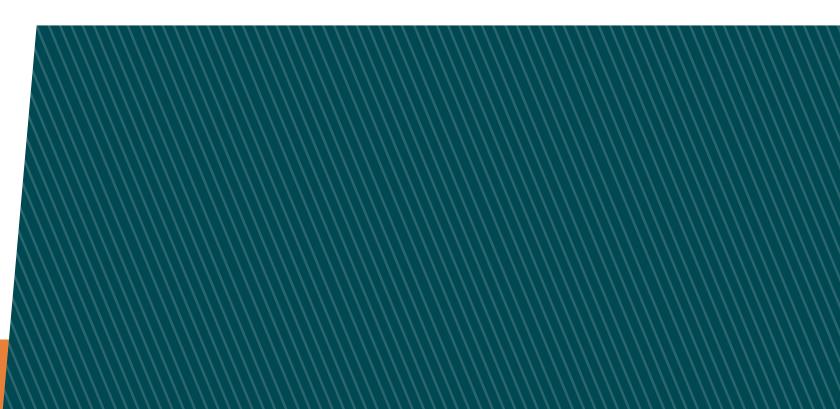
BEARING GRADES

52100 GRADE 1 (ASTM A485) 52100 GRADE 2 (ASTM A485) 52100 (ASTM A295) M-50 440C

PRECIPITATION HARDENING 17-4 PH 15-5 PH

To experience seamless rolled ring speed and service, visit McInnesRolledRings.com, call 814.459.4495 or e-mail sales@mcrings.com.









TO EXPERIENCE SEAMLESS Rolled Ring Speed and Service, **CONTACT US TODAY.**



(814) 459-4495 Fax: (814) 459-8443 sales@mcrings.com 1533 E 12th Street, Erie, PA 16511 www.mcinnesrolledrings.com

