TÜVRheinland®

Scope according to	☒	Directive 2014/68/EU Annex I §4.3	☐	EN 764-4	☐	AD 2000-Merkblatt W0	☐	FPC, Regulation (EU) No. 305/2011(System 2+)

Manufacturer	Work	Nationality	Date	Page No..	
Company Name: McInnes Rolled Rings	1533 E 12th Street, Erie PA. 16511, USA	USA	Oct. 8, 2020	1	TÜV Rheinland
					Industrie Service
Location: 1533 E 12th Street, Erie PA. 16511, USA			Rev.: 4	of : 1	GmbH

Cur-	Materials-term Materials-No.	Material Specification	Delivery Cond.	Article Type of Product	Dimensions				Weight max		Technical Specifications Requirements Technical Regulations	Remarks
					Thick-ness mm		⌀ mm		1=t / 2=kg			
					from	Up to	from	Up to	⇓	result		
1	2	3	4	5	6a	6b	7a	7b	8a	8b	9	10

1. Materials according to international standards (e. g. ASTM, ASME, IBR etc.)

The use of the materials according to Directive 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4.

1	ASTM A105 / ASME SA105		AR, N, NT, QT	Forging	-	558	-	3,658	2	4,000	ASTM / ASME	a
2	ASTM A266 / ASME SA266	Grades 2, 4	N, NT, QT	Forging	-	558	-	3,658	2	4,000	ASTM / ASME	a
3	ASTM A350 / ASME SA350	Grade LF2	N, NT, QT	Forging	-	558	-	3,658	2	4,000	ASTM / ASME	a
4	ASTM A182 / ASME SA 182	F6A, F22	NT, A	Forging	-	558	-	3,658	2	4,000	ASTM / ASME	a
5	ASTM A182 / ASME SA 182	F51, F60	AT	Forging	-	558	-	3,658	2	4,000	ASTM / ASME	a
6	ASTM A182 / ASME SA 182	F304/F304L	AT	Forging	-	558	-	3,658	2	4,000	ASTM / ASME	a
7	ASTM A182 / ASME SA 182	F316/F316L	AT	Forging	-	558	-	3,658	2	4,000	ASTM / ASME	a
8	ASTM A705 / ASME SA 705	UNS17400	AT	Forging	-	558	-	3,658	2	4,000	ASTM / ASME	a

Remarks	+AT = solution annealed	+NT = normalized and tempered	a = PMA by Pressure Equipment
	+AR = as rolled	+QT = quenched and tempered	Manufacturer for the use in pressure
	+M = thermo mechanical treated	+S = soft annealed	equipment according to PED
	+N = normalized or normalizing formed	+SR = stress relieved	2014/68/EU
	+A = annealed		