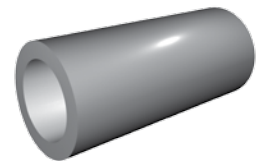




HOLLOWS

The inside diameter of our hollows is forged into the part rather than bored from a bar, which makes them an excellent option that eliminates extra time, cost and material waste. Since we forge them as a single component; we pass along several benefits to our customers by saving production time and increasing part strength.



MANUFACTURING CAPABILITIES

Range	O.D. up to 59 in / I.D. up to 30 in
	Length up to 255 in
	Weight up to 55,000 lb.
Material	Carbon Steel, Alloy Steel, Tool Steel, Stainless Steel.
Heat Treat	Normalizing, Quenching, Tempering, Annealing, Solution Annealing, Spheroidizing, Aging, Stress Relieving.
Testing	Destructive and Non-Destructive.
Machining	Available CNC machining capabilities: vertical & horizontal turning, milling, boring, drilling, deep drilling.



MATERIAL STOCKING GRADES

Classification	Grade	UNS Number	DIN	Werkstoff Nr	
Carbon and Low Alloy steels	A105	K03504	C22.8	1.0460	
	1010	G10100	CK10	1.1121	
	1018	G10180	CK15	1.1141	
	1020	G10200	CK20		
	1035	G10350	CK35	1.1181	
	1045	G10450	CK45	1.1191	
	1050	G10500	CK50		
	1080	G10800	CK80		
	1552	G15520			
	A350 Grade LF6				
A350 Grade LF2	K03011	C22.8	1.0460		
A694					
Alloy Steels	4130	G41300	25CrMo4	1.7218	
	4140	G41400	42CrMo2	1.7225	
	4145	G41450			
	4320	G43200			
	4330				
	4340	G43400	34CrNiMo6	1.6582	
	52100		100Cr6	1.3505	
	8620	G86200	21NiCrMo22	1.6543	
	8630	G86300		1.6545	
	A182 Grade F5	K41545	12CrMo195	1.7362	
	A 182 Grade F11	K11597	13CrMo4-5	1.7335	
	A 182 Grade F22	K21590	10CrMo9-10	1.7380	
	A707 Grade L5				
A707 Grade 3W					
Tool Steels	H13	T20813	X 40 CrMoV 5-1	1.2344	
	P20	T51620	40CrMnNiMo8-6-4	1.2311	
	L6	T61206	55NiCrMoV6	1.2713	
Stainless Steels	A182 F44	S31254	X1CrNiMoN20-18-7	1.4547	
	A182 F51	S31803	X 2 CrNiMoN22-5-3	1.4462	
	A182 F53	S32750	X2CrNiMoN25-7-4	1.4410	
	A182 F60	S32205			
	A182 F91	K90901	X 10 CrMoVNb9-1	1.4903	
	15-5 PH	S15500	X5CrNiCuNb15-5	1.4545	
	17-4 PH	S17400	X5CrNiCuNb 17-4	1.4542	
	304	S30400	X5CrNi18-10	1.4301	
	304L	S30403	X5CrNi18-9	1.4306	
	310	S31000	X8 CrNi 25-21	1.4845	
	316	S31600	X5CrNiMo17 12-2	1.4401	
	316L	S31603	X2CrNiMo17 12-2	1.4404	
	321	S32100	X6CrNiTi18-10	1.4541	
	347	S34700	X6CrNiNb18-10	1.4551	
	410	S41000	X12Cr13	1.4006	
	420	S42000	X46Cr13	1.4034	
	422	S42200		1.4935	
	431	S43100	X17CrNi16-2	1.4057	
	Superalloys	F6NM	S41500	X 3 CrNiMo 13-4	1.4313
Alloy 718		N07718	NiCr19Fe19Nb5Mo3	2.4668	
Alloy 718 Plus					
Waspaloy		N07001	NiCr20Co13Mo4Ti3Al	2.4654	
Alloy 909		N19909	X4NiCo38Nb		
Alloy 907		N19907	X4NiCo38Nb		
Alloy 625		N06625	NiCr22Mo9Nb	2.4856	
Alloy 600		N06600	NiCr15Fe8	2.4816	
Alloy 617		N06617	NiCr23Co12Mo	2.4663	
Alloy X		N06000	NiCr22Fe18Mo	2.4665	
Alloy H230		N06230	NiCo29Cr28Si	2.4880	
Alloy 188		R30188	CoCr22NiW	2.4683	
Alloy H242		N10242			
Alloy HR120		N08120	NiFe33Cr25Co	2.4854	
Nimonic 80		N07080	NiCr20TiAl	2.4952	
Alloy 825		N08825	NiCr 21 Mo	2.4858	
Alloy 800 H		N08800/N08810	X8 NiCrAlTi 32-21	1.4876 / 1.4958	
Alloy C276		N10276	NiMo 16 Cr 15 W	2.4819	
Monel 400		N04400	NiCu 30 Fe	2.4360	
Alloy C263		N07263	NiCo20Cr20Mo6Ti2Al	2.4650	
Alloy 286		S66286	X5 NiCrTi 26-15	1.4980	
Rene 41		N07041	NiCr19Co11MoTi	2.4973	
Thermo Span					
Titanium		Ti-6-4	R56400	TiAl6V4	3.7165
		Ti 6-2-4-2	R54620	TiAl6Sn2Zr4Mo2	3.7145
		Ti 21s	R58210		
		Ti 834			