

SELBSTPORTRAIT

PAOLO ASTORI SRL ARBEITET SEIT 1942 FÜR DEN LUFTFAHRTMARKT.

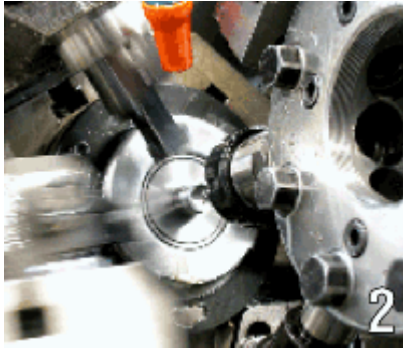
DIE FIRMA WIRD IN DRITTER GENERATION DURCH DIE FAMILIE CAMPAGNOLI BETRIEBEN UND GELEITET. DAS PRODUKTPORTFOLIO UMFASST ANNIETMÜTTERN, SELBSTHEMMENDE ANNIETMÜTTERN, SECHSKANTMÜTTERN (HEX), ZWÖLFKANTMÜTTERN (DOUBLE HEX), TONNENMÜTTERN, EINPRESSMÜTTERN, UNTERLEGSCHLEIBEN UND KLEINTEILE. DIE SELBSTHEMMUNG (GEWINDEQUETSCHUNG) ERFOLGT NACH DER „FRENDADO“™ TECHNIK.



DAS KNOW-HOW, WELCHES IN DIESER LANGEN ZEIT GEWACHSEN IST, DIE STÄNDIGE FORSCHUNG NACH NEUEN MATERIALIEN UND DIE ADAPTION DER MEISTEN FÜHRENDEN TECHNOLOGIEN IN DEN PRODUKTIONSPROZESS, ERMÖGLICHEN PAOLO ASTORI DIE HOHEN STANDARDS DER LUFTFAHRTINDUSTRIE ZU ERFÜLLEN. DIE FIRMA IST IN DER LAGE, DIE GESAMTE PRODUKTION VOM ROHMATERIAL BIS HIN ZUM LETZTEN TEST AUS EINER HAND ANZUBIETEN.

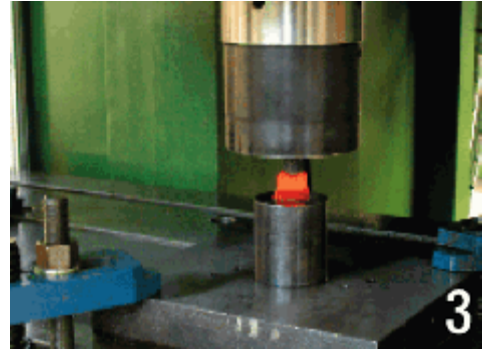


BILD 1 ZEIGT DIE SPANENDE BEARBEITUNG VON INCONEL 718 ALLOY STAHL



***BILD 2 ZEIGT DIE SPANENDE
BEARBEITUNG VON A286
ALLOY STAHL***

***BILD 3 ZEIGT DIE
WARMUMFORMUNG EINER
TITAN ZWÖLFKANTMUTTER***



***BILD 4 ZEIGT DAS
ABRUFLAGER DER FIRMA
PAOLO ASTORI***

PAOLO ASTORI IST UNI-EN-ISO9002 UND DET NORSKE VERITAS QUALIFIZIERT UND HAT DEN NATO LEVEL AQAP4 (NATO CODE A3856).

PAOLO ASTORI IST DESHALB EIN VON AGUSTA (IT), ALENIA (IT), AVIO (IT), EADS (GERMANY), BAE (GB) UND AER MACCHI (IT) ÜBERPRÜFTER UND ZERTIFIZIERTER HERSTELLER.

ZU DEN KUNDEN GEHÖREN BRITISH AEROSPACE, EUROCOPTER, FINMECCANICA (ALENIA, AGUSTA, AERMACCHI), AIRBUS, EADS, CASA, AVIO UND ALLE NAMHAFTEN HÄNDLER WIE WESCO, M&M, LISI, EUROFAST UND FLUGZEUGUNION SÜD.

DIE ZENTRALE DER FIRMA PAOLO ASTORI BEFINDET SICH IN GATTICO UND BEHERBERGT AUF 3.500 QM DIE PRODUKTIONSANLAGEN. IN ARONA BEFINDEN SICH AUF 1.000 QM DIE HAUSEIGENE WÄRMEBEHANDLUNG, DIE HÄRTEREI UND DIE GALVANIK.



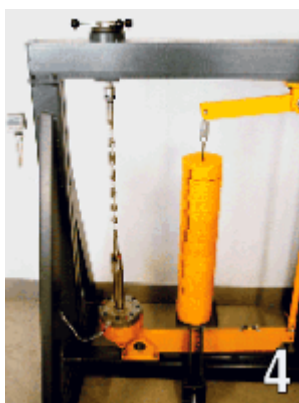
PAOLO ASTORI



***BILD 1 ZEIGT DIE
WÄRMEBEHANDLUNG IN
EINEM DER ÖFEN***



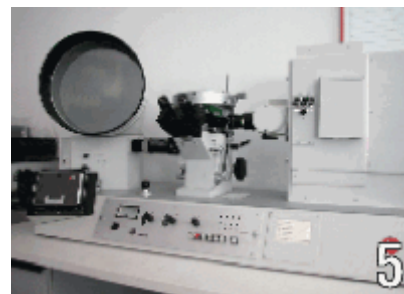
***BILD 2 ZEIGT EIN BAUTEIL
EINER ANNIETMUTTER UNTER
DEM OPTISCHEN
KOMPARATOR***



***BILD 4 ZEIGT DIE STATISCHE
ZUGFESTIGKEITS-
TESTMASCHINE***



***BILD 3 ZEIGT DIE DYNAMISCHE
ZUGFESTIGKEITS-
TESTMASCHINE MIT DER
ELEKTRONISCHEN
AUSWERTUNGSEINHEIT***



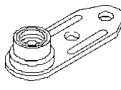
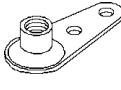
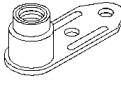
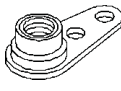
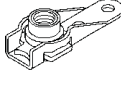
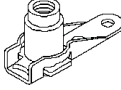
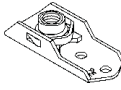
***BILD 5 ZEIGT DAS
METALLOGRAFISCHE
MIKROSKOP***











INSGESAMT BESCHÄFTIGT DIE FIRMA PAOLO ASTORI ZURZEIT 80 MITARBEITER.

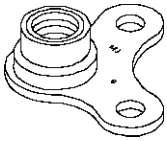
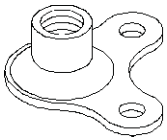
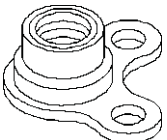
IN DEUTSCHLAND, ÖSTEREICH UND DER SCHWEIZ WIRD PAOLO ASTORI EXKLUSIV DURCH DIE FIRMA *VERBINDUNGS-TECHNIKEN-RÜTHER* VERTRETEN.

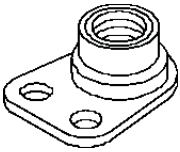
Verbindungs-Techniken Rütther
47918 Tönisvorst
Tel. +49(0)2151-6510698

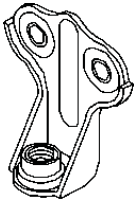
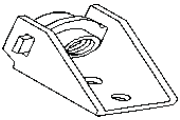


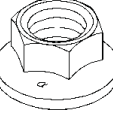
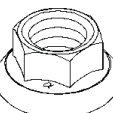
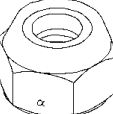
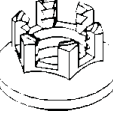
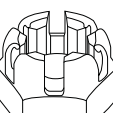
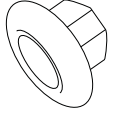
ASTORI CALL OUT	SIZES	FIELD OF APPLICATION AND MATERIALS	REFERENCE STANDARDS	NOTES		
ANCHOR NUTS ONE LUG						
	PO100		900MPa 235°C 25CrMo4	MS21051 NAS682		
	PO101	6-32÷5/16	900MPa 425°C A286	MS21052 NAS682		
	PO102		1100MPa 235°C 25CrMo4	NAS1771		
	PO103		1100MPa 425°C A286	NAS1771C		
	O100	3÷10	900MPa 235°C 25CrMo4	LN29673		
	O101	4÷8	900MPa 425°C A286	LN29692		
	O110		900MPa 235°C 25CrMo4	LN29984 LN65130		deep counterbore
	O111	3÷10	900MPa 425°C A286	LN29992 LN65133		
	JO120		1100MPa 235°C 25CrMo4	DIN65347 EN2753		
	JO121		1100MPa 425°C A286	DIN65346 EN3539 EN4248		
JO127	6÷10	1100MPa 315°C A286	JN0411			
	O130	4÷6	900MPa 235°C 25CrMo4	LN29674	100°countersunk	
	O131		900MPa 425°C A286	LN29689		
	PO130	8-32÷1/4	900MPa 235°C 25CrMo4	MS21053- NAS683		
	PO131		900MPa 425°C A286	MS21054 NAS683		
	O140	5÷6	900MPa 235°C 25CrMo4		variable deep c'bore	
	O141		900MPa 425°C A286			
	PO140	10-32÷1/4	900MPa 235°C 25CrMo4			
	PO141		900MPa 425°C A286			
	PO150		900MPa 235°C 25CrMo4	MS21071 NAS696	miniature	
	PO151	4-40÷5/16	900MPa 425°C A286	MS21072 NAS696		
	PO152		1100MPa 235°C 25CrMo4	NAS1776		
	PO153		1100MPa 425°C A286	NAS1776		
	O150		900MPa 235°C 25CrMo4		miniature,deep c'bore	
	O151		900MPa 425°C A286			
	O160	4÷6	900MPa 235°C 25CrMo4			
	O161		900MPa 425°C A286	LN29996		
JO162		1100MPa 235°C 25CrMo4	EN3712			
JO163		1100MPa 315 A286°C	EN3768 EN4249			
	PF600		900MPa 235°C 25CrMo4	MS21061 NAS687	floating	
	PF601	4-40÷5/16	900MPa 425°C A286	MS21062 NAS687		
	PF602		1100MPa 235°C 25CrMo4	NAS1774		
	PF603		1100MPa 425°C A286	NAS1774		
	F600	3÷8	900MPa 235°C 25CrMo4	LN29681	floating,deep c'bore	
	F601		900MPa 425°C A286	LN29668		
	F610		900MPa 235°C 25CrMo4	LN29987 LN65127		
	F611	3÷10	900MPa 425°C A286	LN65006		
	JF620		1100MPa 235°C 25CrMo4	DIN65243 EN2866		
	JF621		1100MPa 425°C A286	DIN65244 EN2867		
	PF640	10-32÷1/4	900MPa 235°C 25CrMo4		variable deep c'bore	
	PF641		900MPa 425°C A286		floating	
	F640	5÷8	900MPa 235°C 25CrMo4			
	F641		900MPa 425°C A286			
	FR610		900MPa 235°C 25CrMo4		replaceable	
	FR611	5÷8	900MPa 425°C A286		deep c'bore	
	FR620		900MPa 235°C 25CrMo4			
	FR621		900MPa 425°C A286			
	FR630	5÷10	1100MPa 235°C 25CrMo4			
	FR631		1100MPa 425°C A286			

ASTORI CALL OUT	SIZES	FIELD OF APPLICATION AND MATERIALS	REFERENCE STANDARDS	NOTES		
ANCHOR NUTS TWO LUGS						
	PO200	4-40+5/16	900MPa 235°C 25CrMo4	MS21047 NAS680		
	PO201		900MPa 425°C A286	MS21048 NAS680		
	PO202		1100MPa 235°C 25CrMo4	NAS1770		
	PO203		1100MPa 425°C A286	NAS1770C		
	O200	3+10	900MPa 235°C 25CrMo4	LN29671		
	O201	3+8	900MPa 425°C A286	LN29691		
	O210	3+10	900MPa 235°C 25CrMo4	LN29982 LN65129		
	O211	3+10	900MPa 425°C A286	LN29990 LN65132	deep counterbore	
	JO220		1100MPa 235°C 25CrMo4	DIN65345		
	JO221		1100MPa 425°C A286	DIN65344 EN3537 EN4255		
	JO227	6+10	1100MPa 315°C A286	JN0396	EMC, deep c'bore	
	PO230	6-32+1/4	900MPa 235°C 25CrMo4	MS21049 NAS681	100°countersunk	
	PO231		900MPa 425°C A286	MS21050 NAS681		
	O230	4+8	900MPa 235°C 25CrMo4	LN29672		
	O231		900MPa 425°C A286	LN29688		
	PO240	10-32+1/4	900MPa 235°C 25CrMo4		variable deep c'bore	
	PO241		900MPa 425°C A286			
	O240	5+6	900MPa 235°C 25CrMo4			
	O241		900MPa 425°C A286			
	A2K40	5+6	900MPa 315°C A286	JN0174		miniature, var. deep c'bore
	PO250	4-40+5/16	900MPa 235°C 25CrMo4	MS21069 NAS697	miniature	
	PO251		900MPa 425°C A286	MS21070 NAS697C		
	PO252		1100MPa 235°C 25CrMo4	NAS1775		
	PO253		1100MPa 425°C A286	NAS1775C		
	O250	4+6	900MPa 235°C 25CrMo4	LN29677		
	O251		900MPa 425°C A286			
	O260		900MPa 235°C 25CrMo4			LN29983
	O261		900MPa 425°C A286			LN29991
	JO260		1100MPa 235°C 25CrMo4			DIN65343 EN2752
	JO261		1100MPa 425°C A286			DIN65342 EN3538 EN4256
	JO267		6			1100MPa 425°C A286
	PF700	4-40+5/16	900MPa 235°C 25CrMo4		MS21059 NAS686	floating
	PF701		900MPa 425°C A286	MS21060 NAS686C		
	PF702		1100MPa 235°C 25CrMo4	NAS1773		
	PF703		1100MPa 425°C A286	NAS1773C		
	F700	3+10	900MPa 235°C 25CrMo4	LN29679		
	F701		900MPa 425°C A286	LN29693		
	F710		900MPa 235°C 25CrMo4	LN29985 LN65126		
	F711		900MPa 425°C A286	LN65007		
	JF720		1100MPa 235°C 25CrMo4	DIN65240 EN2754		
	JF721		1100MPa 425°C A286	DIN65242 EN2865		
JF734	5+7		1100MPa 600°C A286	EN3020		
F736	3+10	900MPa 600°C Waspaloy		high temp		
	PF740	10-32+1/4	900MPa 235°C 25CrMo4	NAS1870	variable deep c'bore floating	
	PF741		900MPa 425°C A286	NAS1870C		
	F740	5+8	900MPa 235°C 25CrMo4			
	F741		900MPa 425°C A286			
	A7K20		900MPa 315°C A286			JN0135 EN3834
	PF750	6-32+1/4	900MPa 235°C 25CrMo4	MS21075	floating, miniature	
	PF751		900MPa 425°C A286	MS21076		
	PF752		1100MPa 235°C 25CrMo4	NAS1779		
	PF753		1100MPa 425°C A286	NAS1779C		
	F750	4+6	900MPa 235°C 25CrMo4	LN29910		
	F751		900MPa 425°C A286			
	JF750		900MPa 235°C 25CrMo4			
	JF751		900MPa 425°C A286			
	F760		900MPa 235°C 25CrMo4			LN29986
	F761		900MPa 425°C A286			floating, miniature deep c'bore
	JF760		1100MPa 235°C 25CrMo4			
JF761	1100MPa 425°C A286	JN0015 EN3435				
	A7K40	4+6	900MPa 315°C A286	JN0168	miniature variable deep counterbore	
	FR710	5+8	900MPa 235°C 25CrMo4		replaceable deep c'bore	
	FR711		900MPa 425°C A286			
	FR720		900MPa 235°C 25CrMo4			
	FR721		900MPa 425°C A286			
	FR730	5+10	1100MPa 235°C 25CrMo4			
	FR731		1100MPa 425°C A286			

ASTORI CALL OUT	SIZES	FIELD OF APPLICATION AND MATERIALS	REFERENCE STANDARDS	NOTES	
ANCHOR NUTS CORNER 90°					
	PO300	6-32÷5/16	900MPa 235°C 25CrMo4	MS21055 NAS684	
	PO301		900MPa 425°C A286	MS21056 NAS684C	
	PO302		1100MPa 235°C 25CrMo4	NAS1772	
	PO303		1100MPa 425°C A286	NAS1772C	
	O300	3÷10	900MPa 235°C 25CrMo4	LN29675	
	O301		900MPa 425°C A286		
	O310		900MPa 235°C 25CrMo4	LN29988 LN65131	
	O311		900MPa 425°C A286		
	JO310		1100MPa 235°C 25CrMo4	DIN65238 EN2862	
	JO311		1100MPa 425°C A286	DIN65239 EN2863 EN4251	
	PO330	8-32÷1/4	900MPa 235°C 25CrMo4	MS21057 NAS685	100°countersunk
	PO331		900MPa 425°C A286	MS21058 NAS685C	
	O330	4÷8	900MPa 235°C 25CrMo4	LN29676	
	O331		900MPa 425°C A286		
	PO350	4-40÷1/4	900MPa 235°C 25CrMo4	MS21073 NAS698	miniature
	PO351		900MPa 425°C A286	MS21074	
	PO352		1100MPa 235°C 25CrMo4	NAS1777	
	PO353		1100MPa 425°C A286	NAS1777C	
	O350	4÷6	900MPa 235°C 25CrMo4		
	O351		900MPa 425°C A286		
	O360		900MPa 235°C 25CrMo4	LN29989	
	O361		900MPa 425°C A286		
	JO360		1100MPa 235°C 25CrMo4	EN2855	
	JO361		1100MPa 425°C A286	EN3750 EN4252 JN0226	

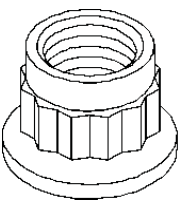
<i>ASTORI CALL OUT</i>	<i>SIZES</i>	<i>FIELD OF APPLICATION AND MATERIALS</i>	<i>REFERENCE STANDARDS</i>	<i>NOTES</i>		
<i>ANCHOR NUTS CLOSED CORNERS</i>						
	PO354	6-32÷1/4	900MPa 235°C 25CrMo4	MS21086 NAS1067	miniature	
	PO355		900MPa 425°C A286	MS21087 NAS1067C		
	O354		900MPa 235°C 25CrMo4	LN29678		
	O355	4÷6	900MPa 425°C A286			
	JO362		1100MPa 235°C 25CrMo4	EN2856		miniature, deep c'bore
	JO363		1100MPa 425°C A286	EN3751 EN4253		

<i>ASTORI CALL OUT</i>	<i>SIZES</i>	<i>FIELD OF APPLICATION AND MATERIALS</i>	<i>REFERENCE STANDARDS</i>	<i>NOTES</i>	
<i>ANCHOR NUTS RIGHT ANGLE</i>					
	PO410 PO411	8-32÷10-32	900MPa 235°C 25CrMo4 900MPa 425°C A286		
	O410 O411	4÷5	900MPa 235°C 25CrMo4 900MPa 425°C A286		
	PF910 PF911	6-32÷1/4		NAS1033 NAS1033C	floating
	F910 F911	3÷6		LN29791 LN65137	
					

ASTORI CALL OUT	SIZES	FIELD OF APPLICATION AND MATERIALS	REFERENCE STANDARDS	NOTES				
HEX NUTS								
	PDS10 PDS11	6-32÷3/8	1100MPa 235°C 35CrMo4 1100MPa 425°C A286	MS21042 NAS1291 MS21043 NAS1291C	reduced hex			
	DS10 DS11 JDS10 JDS11 JDS11	3÷14	1100MPa 235°C 35CrMo4 1100MPa 425°C A286 1100MPa 235°C 35CrMo4 1100MPa 315°C A286 1100MPa 425°C A286	LN9338 LN65409 LN9161 LN65410 JN0106 EN3626 DIN65480 EN3536 EN3196 EN3723 EN3377				
		DRS10 DRS11 DRS20 DRS21 JDRS10 JDRS11 JDRS20 JDRS21	3÷12	1100MPa 235°C 35CD4 1100MPa 425°C A286 1100MPa 235°C 35CD4 1100MPa 425°C A286 1100MPa 235°C 35CD4 1100MPa 425°C A286 1100MPa 235°C 35CD4 1100MPa 425°C A286		LN29790 DIN65507 EN2882 DIN65508 EN2883 EN3431 EN3033 EN3034	reduced hex with captive washer	
			DN20 DN21	3÷24		900MPa 120°C 25CD4 900MPa 120°C A286	LN9348	nylon insert
			JDN22 JDN23	3÷20		900MPa 120°C 25CD4 900MPa 120°C A286	DIN65545	
			JDN26 JDN27	2÷24		900MPa 120°C 25CD4 900MPa 120°C A286	EN4309 EN4297	
				DF100 DF101		5÷14	900MPa 235°C 35CD4 900MPa 425°C A286	
JDF100 JDF101				4÷24	900MPa 235°C 35CD4 900MPa 425°C A286	NA0049		
JDF120 JDF121		5÷24		900MPa 235°C 35CD4 900MPa 425°C A286	EN3434 ASN-A0225			
		DFN30 DFN31 JDFN30 JDFN31		5÷20	1100MPa 120°C 35CD4 1100MPa 120°C A286 1100MPa 120°C 35CD4 1100MPa 120°C A286	MBBN3049 DIN65246 DIN65270	double lock nylon insert	
	DFN80 DFN81 JDFN80 JDFN81	5÷14		900MPa 120°C 35CD4 900MPa 120°C A286 900MPa 120°C 35CD4 900MPa 120°C A286	MBBN3050 MBBN3129			
		D010 D011 JD020 JD021	5÷12	900MPa 235°C 35CrMo4 900MPa 425°C A286 900MPa 235°C 35CrMo4 900MPa 425°C A286	LN29795 EN2647 EN3763 JN0098	ball seat		

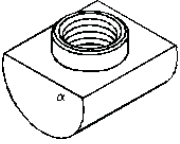
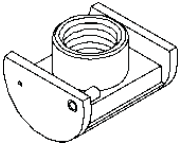
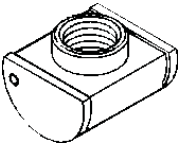
<i>ASTORI CALL OUT</i>	<i>SIZES</i>	<i>FIELD OF APPLICATION AND MATERIALS</i>	<i>REFERENCE STANDARDS</i>	<i>NOTES</i>
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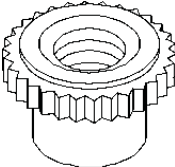
DOUBLE HEX NUTS

	PDP10	1/4÷3/4	1250MPa	235°C	35CrMo4	NAS1804		
	PDP11		1250MPa	650°C	A286	NAS1805		
	DP10	5÷20	1250MPa	235°C	35CrMo4			
	DP11		1250MPa	650°C	A286	LN9339		
	DP12		1550MPa	600°C	INCO718	EN4011	EN4012	
	XDP13		1800MPa	235°C	INCO718			
	DP14		1550MPa	235°C	30NCD16	LN29919	EN3713	
	DP30		1100MPa	650°C	A286	EN2906	EN2907	EN3720
	DP40		1100MPa	650°C	A286	EN2908	EN2909	EN3721
	JDP61		1100MPa	425°C	A286	DIN65530		
	XDP66		1100MPa	425°C	A286	DAS1020		
	DP68		1550MPa	425°C	INCO718	EN2894		
	DP74		1800MPa	235°C	30NCD16	LN29942	LN65415	DIN65528

ASTORI CALL OUT	SIZES	FIELD OF APPLICATION AND MATERIALS	REFERENCE STANDARDS	NOTES
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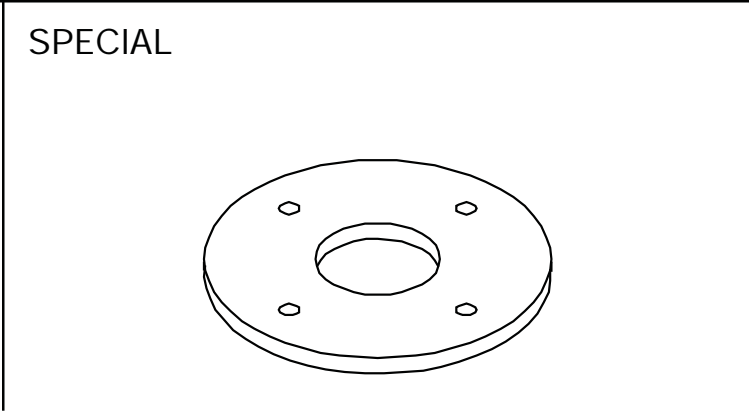
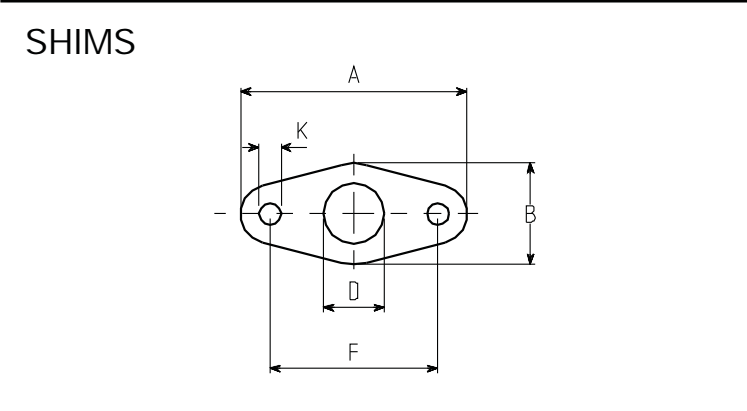
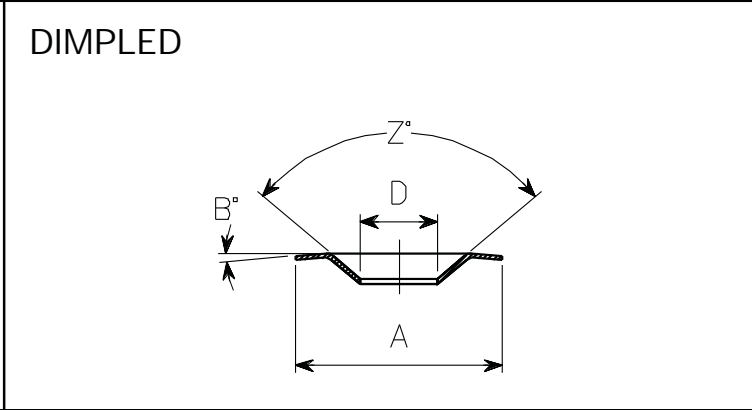
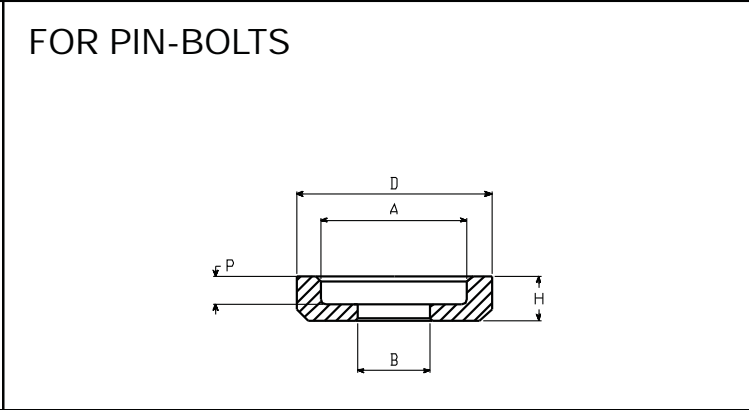
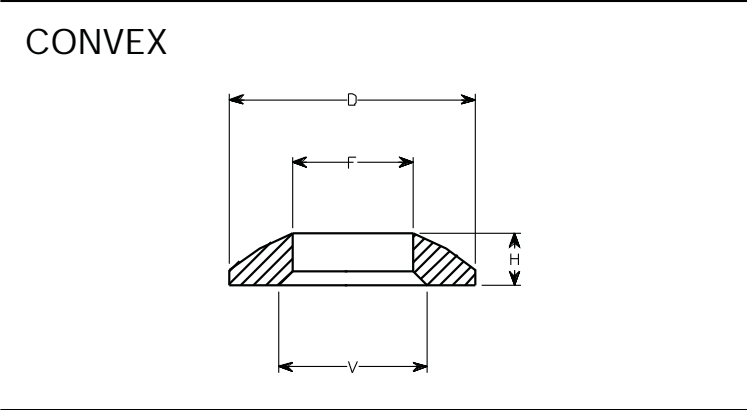
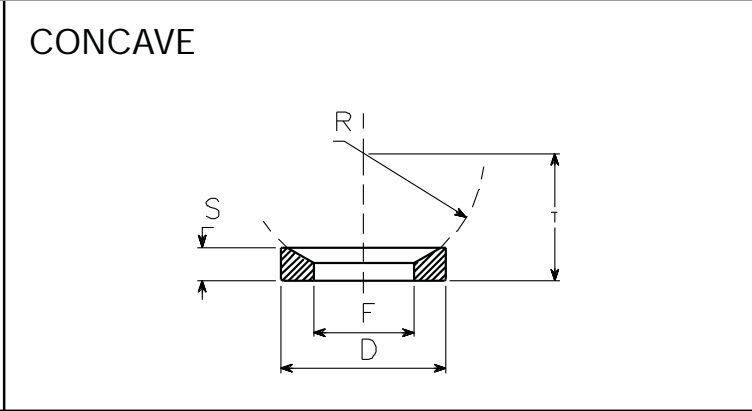
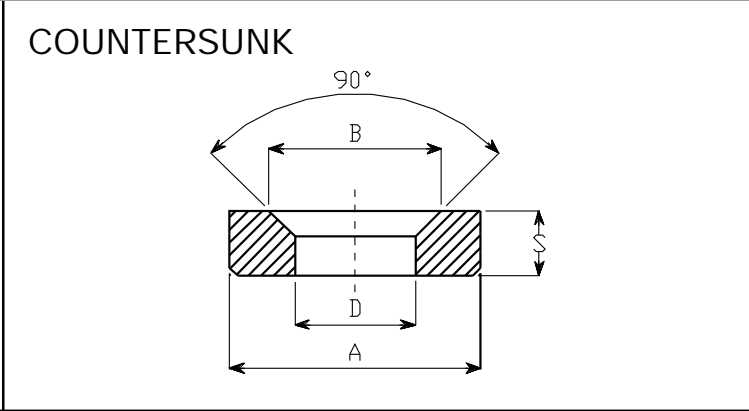
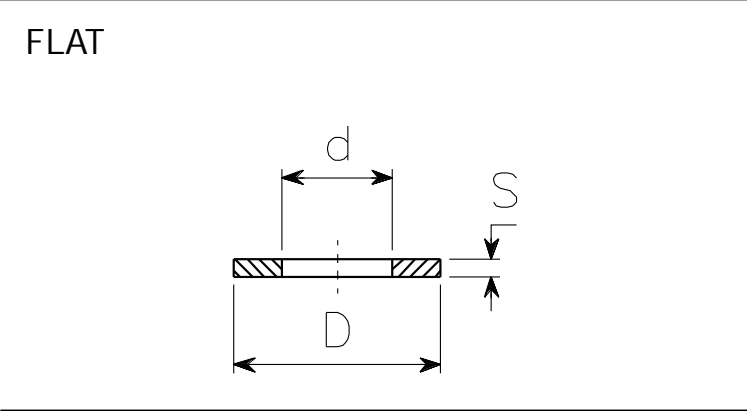
BARREL NUTS

	PAB100	10-32÷7/8	1550MPa	235°C	40NCD7		
	PAB101		1550MPa	235°C	INCO718		
	AB100	5÷24	1550MPa	235°C	40NCD7		
	AB101		1550MPa	235°C	INCO718		
	PAFB477	10-32÷7/8	1250MPa	235°C	40NCD7		floating
	PAFB577		1250MPa	235°C	40NCD7		
	AFB577	5÷24	1250MPa	235°C	40NCD7	UA22005	
	AFB578		1250MPa	235°C	A286		
	AFB505	5÷24	1550MPa	235°C	40NCD7	UA22006	
	AFB506		1550MPa	235°C	40NCD7 (*)	LN29788	
	AFB640		1550MPa	235°C	INCO718	JN0122	
	AFB650		1550MPa	235°C	INCO718	UA22008	

<i>ASTORI CALL OUT</i>	<i>SIZES</i>	<i>FIELD OF APPLICATION AND MATERIALS</i>	<i>REFERENCE STANDARDS</i>	<i>NOTES</i>
PRESS NUTS				
	DR10 DR31 DR50	3÷6	900MPa 235°C 40NCD7 900MPa 425°C A286 900MPa 120°C C35	LN29638 JN0033
	DR33	3÷6	900MPa 425°C A286	JN0034
	nylon insert dome			

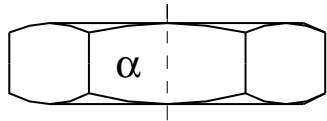
(*) material of barrel: alloy 7075T6

WASHERS

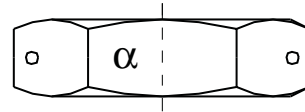


MISCELLANEA

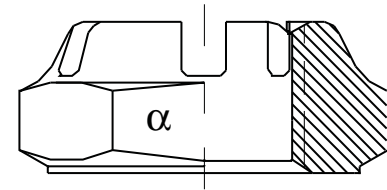
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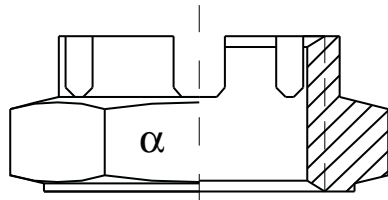
WITH LOCK HOLES



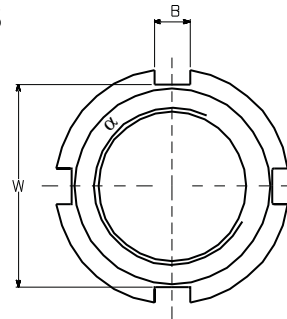
CASTELLATED



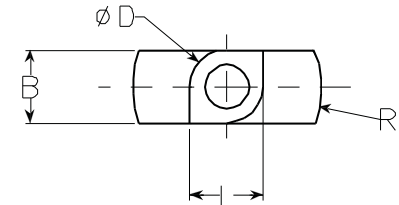
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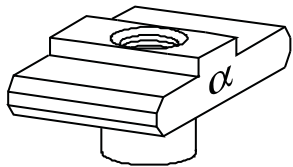
SPANNERS



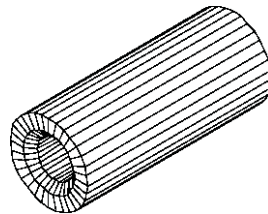
CHANNEL



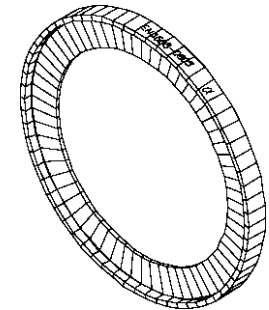
CHANNEL



SPACERS



T-RING FILLERS



COLLARS

