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Sleeves for Bearings

Since 1957 | ISO 9001

BGL - Bertoloto & Grotta Ltda.
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June 2021 Release

PRODUCT CATALOG



PRODUCT CATALOG

HIGH PERFORMANCE AND MORE PRODUCTIVITY

BGL

BGL[®]
BERTOLOTO & GROTTA
ACCESSORIES FOR BEARINGS

Since 1957
ISO 9001

PRESENTATION

History

BGL - Bertoloto & Grotta is a 100% Brazilian company, leader in the national market of fastening elements for industrial bearings, such as **sleeves, lock nuts, precision nuts, lock washers, hydraulic nuts, hook spanners, extension tubes and hydraulic pumps**. BGL was founded on August 14, 1957 in Limeira, State of Sao Paulo, Brazil where it still operates today, in a strategical location with an area of 13,000 m2. **It is a pioneer in the manufacturing of sleeves and spare parts for bearings in Brazil**, exporting its products to various countries.

Technology

Thanks to its several decades of experience in this segment, **BGL** has developed the best material for the manufacturing of sleeves and lock nuts for bearings based on the **DIN 1563** standard; class **GJS 500-7**, known as **GGG50**. This material has been enhanced to reach even more tensile strength than required by the international **DIN** and **ISO** standards. Furthermore, the material is stronger than rolled steel, based on SAE 1020. **BGL** advises sleeves to be specified in Nodular (ductile) for its higher quality characteristics, but other materials such as carbon steel or stainless steel can be used upon customer's request.

To achieve this, the company relies on qualified suppliers, the manufacturing process is vertical, allowing full control over the whole transformation technology, and from the when the raw material enters the factory all the way up to the finished product. Every part is laser marked with the batch number and part number assuring full traceability to the process and the product.

BGL parts are supplied to customers in various industry fields, such as Mining, agricultural machinery, conveyors, pulp and paper, mills, oil production, textile machinery, fans, crushers, machines for ceramics, road and ship building, among others.

Tradition and Certification

With more than six decades of tradition and success with sleeves for bearings, **BGL** always follows new manufacturing, quality and development technologies to meet customer requirements by selling high quality products and services and continuously improving its processes, which can be shown by the **ISO 9001** certification.

PREFACE

This catalogue has been developed by BGL technical department as a guide for dimensions. It may suffer changes with no prior notice, and its partial or full reproduction is authorized, as long as the source is credited to **BGL**. 2021 release.

Every care has been taken to prepare this catalogue, concerning the information contained herein. We disclaim liability for eventual mistakes and omissions.

All the products mentioned herein require careful handling for safety, especially the hydraulic methods. Always check and follow the mounting and dismounting instructions to avoid accidents.

TECHNICAL INFORMATION

Electronic Catalog (CAD 2D/3D)

<https://www.bgl.com.br/en/catalogo/enus/>

Mounting and Dismounting Instructions

<https://www.bgl.com.br/en/treinamento.htm>

PDF Catalogs and Folders

<https://www.bgl.com.br/en/catalogos-folders.htm>

Online Calculation for Spherical Roller Bearings Clearance Reduction assembled with Sleeves

https://www.bgl.com.br/en/calculo_reducao

Spherical Roller Bearings Clearance Reduction APP, please access **Google Play** or **APP Store**.

TECHNICAL STANDARD REFERENCE

DIN 5415 , ISO 2982-1: Sleeves for Bearings

DIN 981, DIN 5406, ISO 2982-2: Lock Nuts and Lock Washers

For technical hints, please access <https://www.bgl.com.br/en/dicas.htm>



Since 1957 | ISO 9001

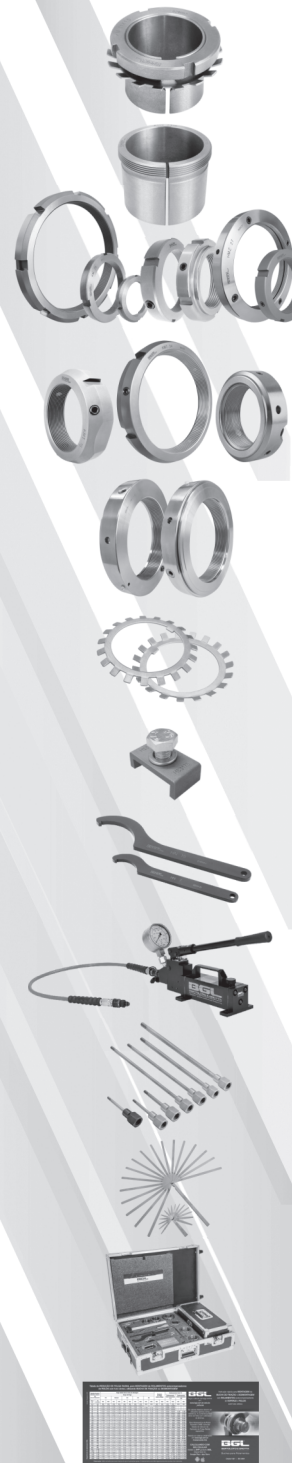
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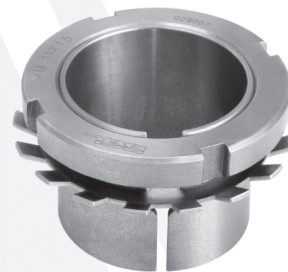
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APPENDIX

Bearing Clearance Reduction Table. 140

ADAPTER SLEEVES H, HE, HA, HS

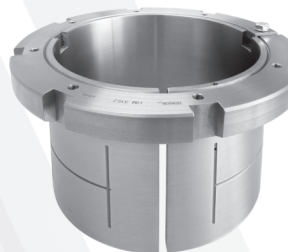
ADAPTER SLEEVES H, HE, HA, HS



ADAPTER SLEEVES H, HE, HA, HS

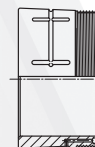
Adapter sleeves are the most commonly used components for locating bearings with a tapered bore onto a cylindrical seat as they can be used on plain or stepped shafts (maximum tolerance h10). The set contains 3 (three) parts: A sleeve, a nut and a lock washer or MS locking clip. These are always provided as a full set.

Material: BGL Nodular (Ductile) with characteristics exceeding the DIN 1563 standard class GJS 500-7 (former GGG50). Optionally in carbon or stainless steel.



HYDRAULIC ADAPTER SLEEVES

With the same measurements of the standard sleeves, these are recommended for medium and large-sized applications as they are provided with internal and external grooves and ducts for oil injection, making the mounting and specially dismantling process much easier and quicker. Available for shafts from 140 mm.



Usual: **OH ...H** = Hydraulic Adapter Sleeve with oil grooves on the external side and the oil injection duct on the thread side (more common). PN example: OH 3144H.



Optional: **OH ...HB** = Hydraulic Adapter Sleeve with oil grooves on the internal and external side and the oil injection duct on the thread side. PN example: OH 3144HB.



Optional: **OH ...** = Hydraulic Adapter Sleeve with oil grooves on the external side and the oil injection duct on the opposite side of the thread. PN example: OH 3144.

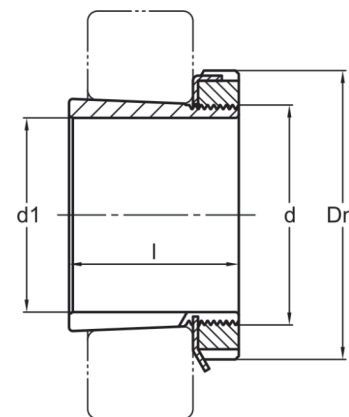


Optional: **OH ...B** = Hydraulic Adapter Sleeve with oil grooves on the internal and external side and the oil injection duct on the opposite side of the thread. PN example: OH 3144B.

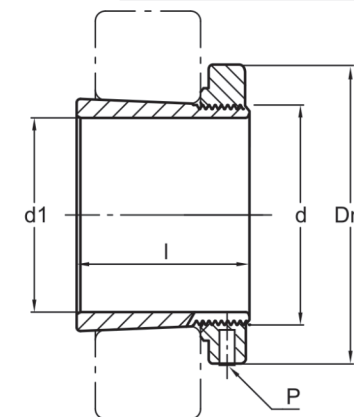


ADAPTER SLEEVES

H - For Shafts in mm



ADAPTER SLEEVES H



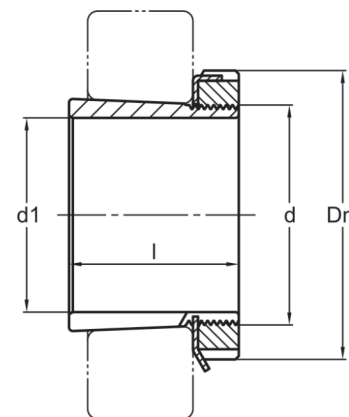
ADAPTER SLEEVES H...E WITH KMFE LOCK NUT

Product	Hydraulic Part Number	d1 (mm)	d (mm)	Thread (mm)	l (mm)	Dm (mm)	P	Assembly Nut	Lockwasher / Locking Devices	Weight (Kg)	HYDRAULIC		ASSEMBLY AND WITHDRAWAL TOOL				Bearings
											A	G1	Extension Tube	Hook Spanner	Hydraulic Nut	Hydraulic Pump	
H 204		17	20	M 20x1	24	32		KM 4	MB 4	0.04				HN 4		1204K	
H 304		17	20	M 20x1	28	32		KM 4	MB 4	0.05				HN 4		1304K	2204K
H 304 E		17	20	M 20x1	28	32	M5	KMFE 4		0.05				HN 4			
H 2304		17	20	M 20x1	31	32		KM 4	MB 4	0.05				HN 4		2304K	
H 205		20	25	M 25x1,5	26	38		KM 5	MB 5	0.07				HN 5		1205K	20205K
H 305		20	25	M 25x1,5	29	38		KM 5	MB 5	0.07				HN 5		1305K	20305K 2205K 22205K
H 305 E		20	25	M 25x1,5	29	38	M5	KMFE 5		0.08				HN 5			C2205K 2205-2RSK
H 2305		20	25	M 25x1,5	35	38		KM 5	MB 5	0.08				HN 5		2305K	UK205 UK305 2305-2RSK YSA 205-2FK
H 206		25	30	M 30x1,5	27	45		KM 6	MB 6	0.09				HN 6		1206K	20206K
H 306		25	30	M 30x1,5	31	45		KM 6	MB 6	0.09				HN 6		1306K	20306K 2206K 21306K 22206K
H 306 E		25	30	M 30x1,5	31	45	M5	KMFE 6		0.09				HN 6			C2206K 2206-2RSK
H 2306		25	30	M 30x1,5	38	45		KM 6	MB 6	0.11				HN 6		2306K	UK206 UK306 2306-2RSK YSA 206-2FK
H 207		30	35	M 35x1,5	29	52		KM 7	MB 7	0.12				HN 7		1207K	20207K
H 307		30	35	M 35x1,5	35	52		KM 7	MB 7	0.13				HN 7		1307K	20307K 2207K 21307K 22207K
H 307 E		30	35	M 35x1,5	35	52	M5	KMFE 7		0.13				HN 7			C2207K 2207-2RSK
H 2307		30	35	M 35x1,5	43	52		KM 7	MB 7	0.15				HN 7		2307K	UK207 UK307 2307-2RSK YSA 207-2FK
H 208		35	40	M 40x1,5	31	58		KM 8	MB 8	0.15				HN 8		1208K	20208K
H 308		35	40	M 40x1,5	36	58		KM 8	MB 8	0.17				HN 8		1308K	20308K 2208K 21308K 22208K
H 308 E		35	40	M 40x1,5	36	58	M6	KMFE 8		0.19				HN 8			C2208K 2208-2RSK
H 2308		35	40	M 40x1,5	46	58		KM 8	MB 8	0.20				HN 8		22308K	2308K UK208 UK308 2308-2RSK YSA 208-2FK
H 2308 E		35	40	M 40x1,5	46	58	M6	KMFE 8		0.24				HN 8			BS2-2208-2CSK
H 209		40	45	M 45x1,5	33	65		KM 9	MB 9	0.20				HN 9		1209K	20209K
H 309		40	45	M 45x1,5	39	65		KM 9	MB 9	0.22				HN 9		1309K	20309K 21309K 2209K E2.22209K 22209K
H 309 E		40	45	M 45x1,5	39	65	M6	KMFE 9		0.24				HN 9			C2209K 2209-2RSK BS2-2209-2CSK
H 2309		40	45	M 45x1,5	50	65		KM 9	MB 9	0.27				HN 9		22309K	2309K UK209 UK309 2309-2RSK YSA 209-2FK
H 210		45	50	M 50x1,5	35	70		KM 10	MB 10	0.24				HN 10	HMV 10E	BH 100-0,7 / BH 160 / BH 160-4.8	1210K 20210K
H 310		45	50	M 50x1,5	42	70		KM 10	MB 10	0.26				HN 10	HMV 10E	BH 100-0,7 / BH 160 / BH 160-4.8	1310K 20310K 21310K 2210K E2.22210K 22210K
H 310 E		45	50	M 50x1,5	42	70	M6	KMFE 10		0.29				HN 10	HMV 10E	BH 100-0,7 / BH 160 / BH 160-4.8	C2210K 2210-2RSK BS2-2210-2CSK
H 2310		45	50	M 50x1,5	55	70		KM 10	MB 10	0.32				HN 10	HMV 10E	BH 100-0,7 / BH 160 / BH 160-4.8	22310K 2310K UK210 UK310 2310-2RSK YSA 210-2FK
H 211		50	55	M 55x1,5	37	75		KM 11X1.5	MB 11	0.27				HN 11	HMV 11x1.5E	BH 100-0,7 / BH 160 / BH 160-4.8	1211K 20211K
H 311		50	55	M 55x1,5	45	75		KM 11X1.5	MB 11	0.31				HN 11	HMV 11x1.5E	BH 100-0,7 / BH 160 / BH 160-4.8	1311K 20311K 21311K 2211K 22211K
H 311 E		50	55	M 55x1,5	45	75	M6	KMFE 11X1.5		0.31				HN 11	HMV 11x1.5E	BH 100-0,7 / BH 160 / BH 160-4.8	C2211K 2211-2RSK BS2-2211-2CSK
H 2311		50	55	M 55x1,5	59	75		KM 11X1.5	MB 11	0.38				HN 11	HMV 11x1.5E	BH 100-0,7 / BH 160 / BH 160-4.8	22311K 2311K UK211 UK311 2311-2RSK YSA 211-2FK

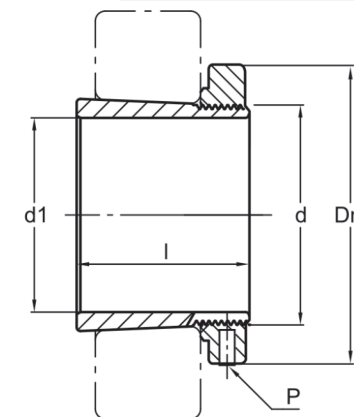


ADAPTER SLEEVES

H - For Shafts in mm



ADAPTER SLEEVES H



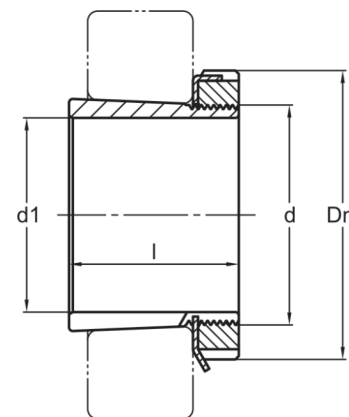
ADAPTER SLEEVES H...E WITH KMFE LOCK NUT

Product	Hydraulic Part Number	d1 (mm)	d (mm)	Thread (mm)	l (mm)	Dm (mm)	P	Assembly Nut	Lockwasher / Locking Devices	Weight (Kg)	HYDRAULIC		ASSEMBLY AND WITHDRAWAL TOOL								
											A	G1	Extension Tube	Hook Spanner	Hydraulic Nut	Hydraulic Pump	Bearings				
H 212		55	60	M 60x1,5	38	80		KM 12X1.5	MB 12	0.30			HN 12	HMV 12x1.5E	BH 100-0,7 / BH 160 / BH 160-4.8	1212K	20212K				
H 312		55	60	M 60x1,5	47	80		KM 12X1.5	MB 12	0.35			HN 12	HMV 12x1.5E	BH 100-0,7 / BH 160 / BH 160-4.8	1312K	20312K	21312K	E2.22212K	2212K	22212K
H 312 E		55	60	M 60x1,5	47	80	M6	KMFE 12X1.5		0.37			HN 12	HMV 12x1.5E	BH 100-0,7 / BH 160 / BH 160-4.8	C2212K			2212-2RSK	BS2-2212-2CSK	
H 2312		55	60	M 60x1,5	62	80		KM 12X1.5	MB 12	0.43			HN 12	HMV 12x1.5E	BH 100-0,7 / BH 160 / BH 160-4.8	22312K	2312K	UK212	UK312		YSA 212-2FK
H 213		60	65	M 65x1,5	40	85		KM 13X1.5	MB 13	0.35			HN 13	HMV 13x1.5E	BH 100-0,7 / BH 160 / BH 160-4.8	1213K	20213K				
H 313		60	65	M 65x1,5	50	85		KM 13X1.5	MB 13	0.40			HN 13	HMV 13x1.5E	BH 100-0,7 / BH 160 / BH 160-4.8	1313K	20313K	21313K	E2.22213K		22213K
H 313 E		60	65	M 65x1,5	50	85	M6	KMFE 13X1.5		0.44			HN 13	HMV 13x1.5E	BH 100-0,7 / BH 160 / BH 160-4.8	C2213K			2213-2RSK		
H 2313		60	65	M 65x1,5	65	85		KM 13X1.5	MB 13	0.50			HN 13	HMV 13x1.5E	BH 100-0,7 / BH 160 / BH 160-4.8	22313K	2313K	UK213	UK313		YSA 213-2FK
H 2313 E		60	65	M 65x1,5	65	85	M6	KMFE 13X1.5		0.53			HN 13	HMV 13x1.5E	BH 100-0,7 / BH 160 / BH 160-4.8	22313K				BS2-2213-2CSK	
H 214		60	70	M 70x2	41	92		KM 14	MB 14	0.54			HN 14	HMV 14E	BH 100-0,7 / BH 160 / BH 160-4.8	1214K	20214K				
H 314		60	70	M 70x2	52	92		KM 14	MB 14	0.64			HN 14	HMV 14E	BH 100-0,7 / BH 160 / BH 160-4.8	1314K	20314K	21314K			22214K
H 314 E		60	70	M 70x2	52	92	M6	KMFE 14		0.64			HN 14	HMV 14E	BH 100-0,7 / BH 160 / BH 160-4.8	C2214K				BS2-2214-2CSK	
H 2314		60	70	M 70x2	68	92		KM 14	MB 14	0.81			HN 14	HMV 14E	BH 100-0,7 / BH 160 / BH 160-4.8	22314K	2314K	C2314K			
H 215		65	75	M 75x2	43	98		KM 15	MB 15	0.63			HN 15	HMV 15E	BH 100-0,7 / BH 160 / BH 160-4.8	1215K	20215K		2215K		
H 315		65	75	M 75x2	55	98		KM 15	MB 15	0.74			HN 15	HMV 15E	BH 100-0,7 / BH 160 / BH 160-4.8	1315K	20315K	21315K			22215K
H 315 E		65	75	M 75x2	55	98	M6	KMFE 15		0.74			HN 15	HMV 15E	BH 100-0,7 / BH 160 / BH 160-4.8	C2215K				BS2-2215-2CSK	
H 2315		65	75	M 75x2	73	98		KM 15	MB 15	0.95			HN 15	HMV 15E	BH 100-0,7 / BH 160 / BH 160-4.8	22315K	2315K	C2315K	UK215		UK315
H 216		70	80	M 80x2	46	105		KM 16	MB 16	0.77			HN 16	HMV 16E	BH 100-0,7 / BH 160 / BH 160-4.8	1216K	20216K				
H 316		70	80	M 80x2	59	105		KM 16	MB 16	0.92			HN 16	HMV 16E	BH 100-0,7 / BH 160 / BH 160-4.8	1316K	20316K	21316K	2216K		22216K
H 316 E		70	80	M 80x2	59	105	M8	KMFE 16		0.92			HN 16	HMV 16E	BH 100-0,7 / BH 160 / BH 160-4.8	C2216K				BS2-2216-2CSK	
H 2316		70	80	M 80x2	78	105		KM 16	MB 16	1.20			HN 16	HMV 16E	BH 100-0,7 / BH 160 / BH 160-4.8	22316K	2316K	C2316K	UK216		UK316
H 217		75	85	M 85x2	50	110		KM 17	MB 17	0.90			HN 17	HMV 17E	BH 100-0,7 / BH 160 / BH 160-4.8	1217K	20217K		2217K		
H 317		75	85	M 85x2	63	110		KM 17	MB 17	1.06			HN 17	HMV 17E	BH 100-0,7 / BH 160 / BH 160-4.8	1317K	20317K	21317K			22217K
H 317 E		75	85	M 85x2	63	110	M8	KMFE 17		1.06			HN 17	HMV 17E	BH 100-0,7 / BH 160 / BH 160-4.8	C2217K				BS2-2217-2CSK	
H 2317		75	85	M 85x2	82	110		KM 17	MB 17	1.30			HN 17	HMV 17E	BH 100-0,7 / BH 160 / BH 160-4.8	22317K	2317K	C2317K	UK217		UK317
H 218		80	90	M 90x2	52	120		KM 18	MB 18	1.07			HN 18	HMV 18E	BH 100-0,7 / BH 160 / BH 160-4.8	1218K	20218K				
H 318		80	90	M 90x2	65	120		KM 18	MB 18	1.24			HN 18	HMV 18E	BH 100-0,7 / BH 160 / BH 160-4.8	1318K	20318K	21318K	2218K		22218K
H 318 E		80	90	M 90x2	65	120	M8	KMFE 18		1.27			HN 18	HMV 18E	BH 100-0,7 / BH 160 / BH 160-4.8	C2218K					
H 2318		80	90	M 90x2	86	120		KM 18	MB 18	1.53			HN 18	HMV 18E	BH 100-0,7 / BH 160 / BH 160-4.8	22318K	2318K	23218K	UK218	C2318K	UK318
H 219		85	95	M 95x2	55	125		KM 19	MB 19	1.20			HN 19	HMV 19E	BH 100-0,7 / BH 160 / BH 160-4.8	1219K	20219K		2219K		
H 319		85	95	M 95x2	68	125		KM 19	MB 19	1.38			HN 19	HMV 19E	BH 100-0,7 / BH 160 / BH 160-4.8	1319K	20319K	21319K			22219K
H 319 E		85	95	M 95x2	68	125	M8	KMFE 19		1.38			HN 19	HMV 19E	BH 100-0,7 / BH 160 / BH 160-4.8	C2219K					
H 2319		85	95	M 95x2	90	125		KM 19	MB 19	1.71			HN 19	HMV 19E	BH 100-0,7 / BH 160 / BH 160-4.8	22319K	2319K	C2319K			UK319

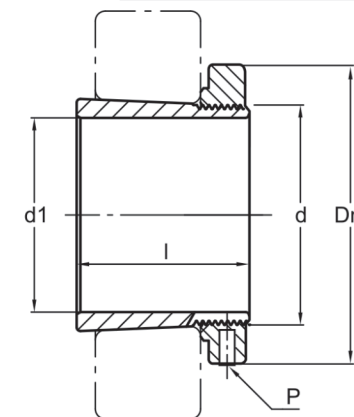


ADAPTER SLEEVES

H - For Shafts in mm



ADAPTER SLEEVES H

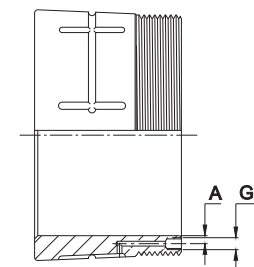
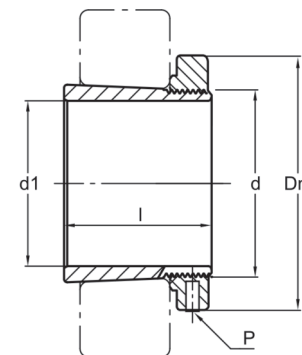
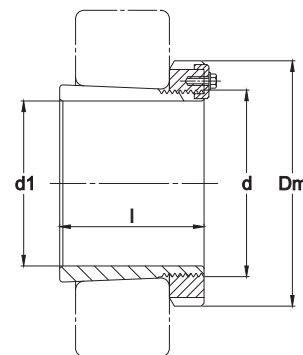
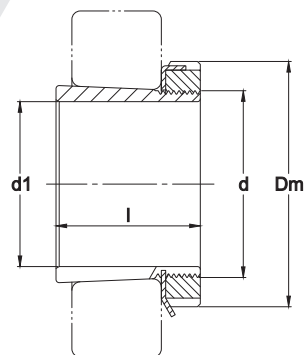


ADAPTER SLEEVES H...E WITH KMFE LOCK NUT

Product	Hydraulic Part Number	d1 (mm)	d (mm)	Thread (mm)	l (mm)	Dm (mm)	P	Assembly Nut	Lockwasher / Locking Devices	Weight (Kg)	HYDRAULIC		ASSEMBLY AND WITHDRAWAL TOOL						
											A	G1	Extension Tube	Hook Spanner	Hydraulic Nut	Hydraulic Pump	Bearings		
H 220		90	100	M 100x2	58	130		KM 20	MB 20	1.35			HN 20	HMV 20E	BH 100-0.7 / BH 160 / BH 160-4.8	1220K	20220K		
H 320		90	100	M 100x2	71	130		KM 20	MB 20	1.54			HN 20	HMV 20E	BH 100-0.7 / BH 160 / BH 160-4.8	1320K	20320K 21320K 2220K		22220K
H 320 E		90	100	M 100x2	71	130	M8	KMFE 20		1.58			HN 20	HMV 20E	BH 100-0.7 / BH 160 / BH 160-4.8	C2220K			
H 3120		90	100	M 100x2	76	130		KM 20	MB 20	1.61			HN 20	HMV 20E	BH 100-0.7 / BH 160 / BH 160-4.8	23120K			
H 3120 E		90	100	M 100x2	76	130	M8	KMFE 20		1.61			HN 20	HMV 20E	BH 100-0.7 / BH 160 / BH 160-4.8	C3120K			
H 2320		90	100	M 100x2	97	130		KM 20	MB 20	1.96			HN 20	HMV 20E	BH 100-0.7 / BH 160 / BH 160-4.8	22320K	2320K 23220K	C2320K	UK320
H 2320 E		90	100	M 100x2	97	130	M8	KMFE 20		1.96			HN 20	HMV 20E	BH 100-0.7 / BH 160 / BH 160-4.8			BS2-2220-2CS5K	
H 221		95	105	M 105x2	60	140		KM 21	MB 21	1.55			HN 21	HMV 21E	BH 100-0.7 / BH 160 / BH 160-4.8	1221K	20221K		
H 321		95	105	M 105x2	74	140		KM 21	MB 21	1.79			HN 21	HMV 21E	BH 100-0.7 / BH 160 / BH 160-4.8	1321K	2221K		22221K
H 2321		95	105	M 105x2	101	140		KM 21	MB 21	2.26			HN 21	HMV 21E	BH 100-0.7 / BH 160 / BH 160-4.8	23221K			
H 222		100	110	M 110x2	63	145		KM 22	MB 22	1.73			HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8	1222K	20222K		
H 322		100	110	M 110x2	77	145		KM 22	MB 22	1.96			HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8	1322K	20322K 21322K 2222K	23022K	22222K
H 322 E		100	110	M 110x2	77	145	M8	KMFE 22		1.28			HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8	C2222K			
H 3122		100	110	M 110x2	81	145		KM 22	MB 22	2.03			HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8	23122K			
H 3122 E		100	110	M 110x2	81	145	M8	KMFE 22		2.05			HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8				23122-2CS5K
H 24022		100	110	M 110x2	90	145		KM 22	MB 22	2.30			HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8	24022K30			
H 24122		100	110	M 110x2	99	145		KM 22	MB 22	2.20			HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8	24122K30			
H 2322		100	110	M 110x2	105	145		KM 22	MB 22	2.50			HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8	22322K	23222K		UK322
H 2322 E		100	110	M 110x2	105	145	M8	KMFE 22		2.50			HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8			23222-2CS5K	BS2-2222-2CS5K
H 3924		110	120	M 120x2	60	145		KML 24	MBL 24	1.68			HN 22	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	23924K			
H 3024		110	120	M 120x2	72	145		KML 24	MBL 24	1.74			HN 22	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	1224K	20224K 23024K		
H 3024 E		110	120	M 120x2	72	155	M10	KMFE 24		1.74			HN 24	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8			C3024K	
H 3124		110	120	M 120x2	88	155		KM 24	MB 24	2.35			HN 24	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	20324K	22224K 23124K		
H 3124 L		110	120	M 120x2	88	145		KML 24	MBL 24	2.00			HN 22	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	C2224K			
H 24024		110	120	M 120x2	91	145		KML 24	MBL 24	2.64			HN 22	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	24024K30			
H 24124		110	120	M 120x2	111	155		KM 24	MB 24	2.87			HN 24	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	24124K30			
H 2324		110	120	M 120x2	112	155		KM 24	MB 24	2.87			HN 24	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	22324K	23224K	22324-2CS5K	UK324
H 2324 E		110	120	M 120x2	112	155	M10	KMFE 24		2.92			HN 24	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8			BS2-2224-2CS5K	
H 2324 L		110	120	M 120x2	112	145		KML 24	MBL 24	2.60			HN 22	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	C3224K		23224-2CS5K	
H 3926		115	130	M 130x2	65	155		KML 26	MBL 26	2.43			HN 24	HMV 26E	BH 100-0.7 / BH 160 / BH 160-4.8	23926K			
H 3026		115	130	M 130x2	80	155		KML 26	MBL 26	2.57			HN 24	HMV 26E	BH 100-0.7 / BH 160 / BH 160-4.8	1226K	20226K 23026K	C3026K	
H 3026 E		115	130	M 130x2	80	165	M10	KMFE 26		2.57			HN 26	HMV 26E	BH 100-0.7 / BH 160 / BH 160-4.8			23026-2CS5K	
H 3126		115	130	M 130x2	92	165		KM 26	MB 26	3.26			HN 26	HMV 26E	BH 100-0.7 / BH 160 / BH 160-4.8	20326K	22226K 23126K		
H 3126 L		115	130	M 130x2	92	155		KML 26	MBL 26	3.00			HN 24	HMV 26E	BH 100-0.7 / BH 160 / BH 160-4.8	C2226K			
H 24026		115	130	M 130x2	102	155		KML 26	MBL 26	2.64			HN 24	HMV 26E	BH 100-0.7 / BH 160 / BH 160-4.8	24026K30			
H 24126		115	130	M 130x2	113	165		KM 26	MB 26	3.60			HN 26	HMV 26E	BH 100-0.7 / BH 160 / BH 160-4.8	24126K30			

* Example of thread part number: M 50 x 1.5. M: Metric Thread - mm, 50: Thread diameter, 1.5: Thread pitch. TR 300 x 4 TR: Trapezoidal metric thread, 300: Thread diameter, 4: Thread pitch.

* Suffix L: Adapters Sleeve with KML Lock nut and MBL Lock Washers. * Suffix TL: Sleeves series 3100 assembled with HM 3000 Lock nuts and MS 3000 Locking clips.



ADAPTER SLEEVES

H, OH...H - For Shafts in mm

ADAPTER SLEEVES H

ADAPTER SLEEVES H WITH HM/MS

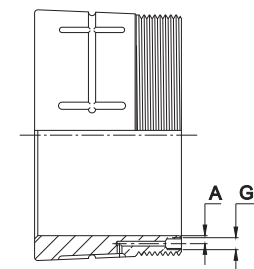
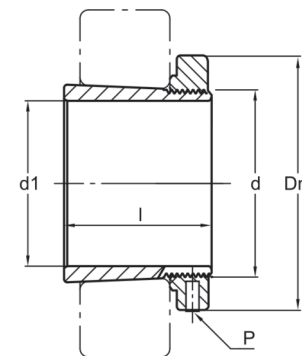
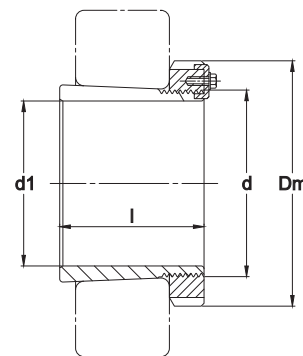
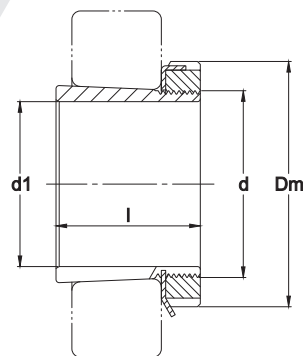
ADAPTER SLEEVES H...WITH KMFE LOCK NUT

REPRESENTATION OF THE OIL GROOVES FOR HYDRAULIC SLEEVES OH...H

Product	Hydraulic Part Number	d1 (mm)	d (mm)	Thread (mm)	l (mm)	Dm (mm)	P	Assembly Nut	Lockwasher / Locking Devices	Weight (Kg)	HYDRAULIC		ASSEMBLY AND WITHDRAWAL TOOL				Bearings				
											A	G1	Extension Tube	Hook Spanner	Hydraulic Nut	Hydraulic Pump					
H 2326		115	130	M 130x2	121	165		KM 26	MB 26	4.20			HN 26	HMV 26E	BH 100-0,7 / BH 160 / BH 160-4.8	22326K	23226K	C2326K	22326-2CS5K	UK326	
H 2326 L		115	130	M 130x2	121	155		KML 26	MBL 26	4.14			HN 24	HMV 26E	BH 100-0,7 / BH 160 / BH 160-4.8				23226-2CS5K	BS2-2226-2CS5K	
H 3928		125	140	M 140x2	66	165		KML 28	MBL 28	2.70			HN 26	HMV 28E	BH 100-0,7 / BH 160 / BH 160-4.8	23928K					
H 3028		125	140	M 140x2	82	165		KML 28	MBL 28	2.88			HN 26	HMV 28E	BH 100-0,7 / BH 160 / BH 160-4.8	20228K	23028K				
H 3028 E		125	140	M 140x2	82	180	M10	KMFE 28		3.45			HN 28	HMV 28E	BH 100-0,7 / BH 160 / BH 160-4.8			C3028K	23028-2CS5K		
H 3128		125	140	M 140x2	97	180		KM 28	MB 28	3.91			HN 28	HMV 28E	BH 100-0,7 / BH 160 / BH 160-4.8	20328K	22228K	23128K			
H 3128 L		125	140	M 140x2	97	165		KML 28	MBL 28	0.91			HN 26	HMV 28E	BH 100-0,7 / BH 160 / BH 160-4.8	C2228K			22228-2CS5K		
H 24028		125	140	M 140x2	103	165		KML 28	MBL 28	3.50			HN 26	HMV 28E	BH 100-0,7 / BH 160 / BH 160-4.8	24028K30					
H 24128		125	140	M 140x2	119	180		KM 28	MB 28	4.40			HN 28	HMV 28E	BH 100-0,7 / BH 160 / BH 160-4.8	24128K30					
H 2328		125	140	M 140x2	131	180		KM 28	MB 28	5.06			HN 28	HMV 28E	BH 100-0,7 / BH 160 / BH 160-4.8	22328K	23228K		22328-2CS5K	23228-2CS5K	UK328
H 2328 L		125	140	M 140x2	131	165		KML 28	MBL 28	5.06			HN 26	HMV 28E	BH 100-0,7 / BH 160 / BH 160-4.8						
H 3930		135	150	M 150x2	76	180		KML 30	MBL 30	3.57			HN 28	HMV 30E	BH 100-0,7 / BH 160 / BH 160-4.8	23930K					
H 3030		135	150	M 150x2	87	180		KML 30	MBL 30	3.56			HN 28	HMV 30E	BH 100-0,7 / BH 160 / BH 160-4.8	20230K	23030K				
H 3030 E		135	150	M 150x2	87	195	M10	KMFE 30		3.56			HN 30	HMV 30E	BH 100-0,7 / BH 160 / BH 160-4.8			C3030K	23030-2CS5K		
H 3130		135	150	M 150x2	111	195		KM 30	MB 30	5.01			HN 30	HMV 30E	BH 100-0,7 / BH 160 / BH 160-4.8	20330K	22230K	23130K		22230-2CS5K	
H 3130 E		135	150	M 150x2	111	195	M10	KMFE 30		5.05			HN 30	HMV 30E	BH 100-0,7 / BH 160 / BH 160-4.8				23130-2CS5K		
H 3130 L		135	150	M 150x2	111	180		KML 30	MBL 30	5.01			HN 28	HMV 30E	BH 100-0,7 / BH 160 / BH 160-4.8	C2230K	C3130K				
H 24030		135	150	M 150x2	112	180		KML 30	MBL 30	6.06			HN 28	HMV 30E	BH 100-0,7 / BH 160 / BH 160-4.8	24030K30					
H 24130		135	150	M 150x2	137	195		KM 30	MB 30	5.40			HN 30	HMV 30E	BH 100-0,7 / BH 160 / BH 160-4.8	24130K30					
H 2330		135	150	M 150x2	139	195		KM 30	MB 30	6.06			HN 30	HMV 30E	BH 100-0,7 / BH 160 / BH 160-4.8	22330K	23230K		22330-2CS5K		
H 2330 L		135	150	M 150x2	139	180		KML 30	MBL 30	5.85			HN 28	HMV 30E	BH 100-0,7 / BH 160 / BH 160-4.8				23230-2CS5K		
H 3932	OH 3932H	140	160	M 160x3	78	190		KML 32	MBL 32	4.57	3.96	M6	TE M6 01 or 02	HN 29	HMV 32E	BH 100-0,7 / BH 160 / BH 160-4.8	23932K				
H 3032	OH 3032H	140	160	M 160x3	93	190		KML 32	MBL 32	4.73	3.96	M6	TE M6 01 or 02	HN 29	HMV 32E	BH 100-0,7 / BH 160 / BH 160-4.8	20232K	23032K			
H 3032 E	OH 3032HE	140	160	M 160x3	93	210	M10	KMFE 32		5.80	3.96	M6	TE M6 01 or 02	HN 32-HN 33	HMV 32E	BH 100-0,7 / BH 160 / BH 160-4.8			C3032K	23032-2CS5K	
H 24032	OH 24032H	140	160	M 160x3	118	190		KML 32	MBL 32	7.80	3.96	M6	TE M6 01 or 02	HN 29	HMV 32E	BH 100-0,7 / BH 160 / BH 160-4.8	24032K30				
H 3132	OH 3132H	140	160	M 160x3	119	210		KM 32	MB 32	6.82	3.96	M6	TE M6 01 or 02	HN 32-HN 33	HMV 32E	BH 100-0,7 / BH 160 / BH 160-4.8		22232K	23132K		22232-2CS5K
H 3132 E	OH 3132HE	140	160	M 160x3	119	210	M10	KMFE 32		6.82	3.96	M6	TE M6 01 or 02	HN 32-HN 33	HMV 32E	BH 100-0,7 / BH 160 / BH 160-4.8				23132-2CS5K	
H 3132 L	OH 3132HL	140	160	M 160x3	119	190		KML 32	MBL 32	6.82	3.96	M6	TE M6 01 or 02	HN 29	HMV 32E	BH 100-0,7 / BH 160 / BH 160-4.8	C3132K				
H 2332	OH 2332H	140	160	M 160x3	147	210		KM 32	MB 32	8.12	3.96	M6	TE M6 01 or 02	HN 32-HN 33	HMV 32E	BH 100-0,7 / BH 160 / BH 160-4.8	22332K	23232K		22332-2CS5K	
H 2332 L	OH 2332HL	140	160	M 160x3	147	190		KML 32	MBL 32	8.12	3.96	M6	TE M6 01 or 02	HN 29	HMV 32E	BH 100-0,7 / BH 160 / BH 160-4.8	C3232K				
H 24132	OH 24132H	140	160	M 160x3	148	210		KM 32	MB 32	7.80	3.96	M6	TE M6 01 or 02	HN 32-HN 33	HMV 32E	BH 100-0,7 / BH 160 / BH 160-4.8	24132K30				
H 3934	OH 3934H	150	170	M 170x3	79	200		KML 34	MBL 34	4.95	3.96	M6	TE M6 01 or 02	HN 31	HMV 34E	BH 100-0,7 / BH 160 / BH 160-4.8	23934K				
H 3034	OH 3034H	150	170	M 170x3	101	200		KML 34	MBL 34	5.41	3.96	M6	TE M6 01 or 02	HN 31	HMV 34E	BH 100-0,7 / BH 160 / BH 160-4.8	20234K	23034K			
H 3034 E	OH 3034HE	150	170	M 170x3	101	220	M10	KMFE 34		5.41	3.96	M6	TE M6 01 or 02	HN 34	HMV 34E	BH 100-0,7 / BH 160 / BH 160-4.8			C3034K	23034-2CS5K	
H 3134	OH 3134H	150	170	M 170x3	122	220		KM 34	MB 34	7.49	3.96	M6	TE M6 01 or 02	HN 34	HMV 34E	BH 100-0,7 / BH 160 / BH 160-4.8		22234K	23134K		22234-2CS5K
H 3134 E	OH 3134HE	150	170	M 170x3	122	220	M10	KMFE 34		7.40	3.96	M6	TE M6 01 or 02	HN 34	HMV 34E	BH 100-0,7 / BH 160 / BH 160-4.8	C3134K				23134-2CS5K

* Example of thread part number: TR 300 x 4, TR: Trapezoidal metric thread, 300: Thread diameter, 4: Thread pitch.

* Suffix TL: Sleeves series 3100 assembled with HM 3000 Lock nuts and MS 3000 Locking clips.



ADAPTER SLEEVES

H, OH...H - For Shafts in mm

ADAPTER SLEEVES H

ADAPTER SLEEVES H WITH HM/MS

ADAPTER SLEEVES H...WITH KMFE LOCK NUT

REPRESENTATION OF THE OIL GROOVES FOR HYDRAULIC SLEEVES OH...H

Product	Hydraulic Part Number	d1 (mm)	d (mm)	Thread (mm)	l (mm)	Dm (mm)	P	Assembly Nut	Lockwasher / Locking Devices	Weight (Kg)	HYDRAULIC		ASSEMBLY AND WITHDRAWAL TOOL				Bearings	
											A	G1	Extension Tube	Hook Spanner	Hydraulic Nut	Hydraulic Pump		
H 3134 L	OH 3134HL	150	170	M 170x3	122	200		KML 34	MBL 34	6.40	3.96	M6	TE M6 01 or 02	HN 31	HMV 34E	BH 100-0,7 / BH 160 / BH 160-4.8	C2234K	
H 24034	OH 24034H	150	170	M 170x3	130	200		KML 34	MBL 34	7.00	3.96	M6	TE M6 01 or 02	HN 31	HMV 34E	BH 100-0,7 / BH 160 / BH 160-4.8	24034K30	
H 24134	OH 24134H	150	170	M 170x3	149	220		KM 34	MB 34	9.20	3.96	M6	TE M6 01 or 02	HN 34	HMV 34E	BH 100-0,7 / BH 160 / BH 160-4.8	24134K30	
H 2334	OH 2334H	150	170	M 170x3	154	220		KM 34	MB 34	9.20	3.96	M6	TE M6 01 or 02	HN 34	HMV 34E	BH 100-0,7 / BH 160 / BH 160-4.8	22334K	23234K
H 3936	OH 3936H	160	180	M 180x3	87	210		KML 36	MBL 36	5.20	3.96	M6	TE M6 01 or 02	HN 32-HN 33	HMV 36E	BH 100-0,7 / BH 160 / BH 160-4.8	23936K	
H 3036	OH 3036H	160	180	M 180x3	109	210		KML 36	MBL 36	6.20	3.96	M6	TE M6 01 or 02	HN 32-HN 33	HMV 36E	BH 100-0,7 / BH 160 / BH 160-4.8	23036K	C3036K
H 3036 E	OH 3036HE	160	180	M 180x3	109	230	M10	KMFE 36		7.33	3.96	M6	TE M6 01 or 02	HN 36	HMV 36E	BH 100-0,7 / BH 160 / BH 160-4.8		23036-2CS5K
H 3136	OH 3136H	160	180	M 180x3	131	230		KM 36	MB 36	8.49	3.96	M6	TE M6 01 or 02	HN 36	HMV 36E	BH 100-0,7 / BH 160 / BH 160-4.8	22236K	23136K
H 3136 L	OH 3136HL	160	180	M 180x3	131	210		KML 36	MBL 36	8.49	3.96	M6	TE M6 01 or 02	HN 32-HN 33	HMV 36E	BH 100-0,7 / BH 160 / BH 160-4.8	C3136K	23136-2CS5K
H 24036	OH 24036H	160	180	M 180x3	140	210		KML 36	MBL 36	7.50	3.96	M6	TE M6 01 or 02	HN 32-HN 33	HMV 36E	BH 100-0,7 / BH 160 / BH 160-4.8	24036K30	
H 24136	OH 24136H	160	180	M 180x3	159	230		KM 36	MB 36	10.00	3.96	M6	TE M6 01 or 02	HN 36	HMV 36E	BH 100-0,7 / BH 160 / BH 160-4.8	24136K30	
H 2336	OH 2336H	160	180	M 180x3	161	230		KM 36	MB 36	10.20	3.96	M6	TE M6 01 or 02	HN 36	HMV 36E	BH 100-0,7 / BH 160 / BH 160-4.8	22336K	23236K C3236K
H 3938	OH 3938H	170	190	M 190x3	89	220		KML 38	MBL 38	6.19	3.95	M6	TE M6 01 or 02	HN 34	HMV 38E	BH 100-0,7 / BH 160 / BH 160-4.8	23938K	
H 3038	OH 3038H	170	190	M 190x3	112	220		KML 38	MBL 38	6.69	3.95	M6	TE M6 01 or 02	HN 34	HMV 38E	BH 100-0,7 / BH 160 / BH 160-4.8	23038K	C3038K
H 3138	OH 3138H	170	190	M 190x3	141	240		KM 38	MB 38	9.62	3.95	M6	TE M6 01 or 02	HN 38	HMV 38E	BH 100-0,7 / BH 160 / BH 160-4.8	22238K	23138K C2238K C3138K
H 3138 L	OH 3138HL	170	190	M 190x3	141	220		KML 38	MBL 38	9.62	3.95	M6	TE M6 01 or 02	HN 34	HMV 38E	BH 100-0,7 / BH 160 / BH 160-4.8		23138-2CS5K
H 24038	OH 24038H	170	190	M 190x3	143	220		KML 38	MBL 38	8.40	3.95	M6	TE M6 01 or 02	HN 34	HMV 38E	BH 100-0,7 / BH 160 / BH 160-4.8	24038K30	
H 2338	OH 2338H	170	190	M 190x3	169	240		KM 38	MB 38	11.40	3.95	M6	TE M6 01 or 02	HN 38	HMV 38E	BH 100-0,7 / BH 160 / BH 160-4.8	22338K	23238K
H 24138	OH 24138H	170	190	M 190x3	172	240		KM 38	MB 38	11.60	3.95	M6	TE M6 01 or 02	HN 38	HMV 38E	BH 100-0,7 / BH 160 / BH 160-4.8	24138K30	
H 3940	OH 3940H	180	200	M 200x3	98	240		KML 40	MBL 40	7.89	3.95	M6	TE M6 01 or 02	HN 38	HMV 40E	BH 100-0,7 / BH 160 / BH 160-4.8	23940K	
H 3040	OH 3040H	180	200	M 200x3	120	240		KML 40	MBL 40	8.26	3.95	M6	TE M6 01 or 02	HN 38	HMV 40E	BH 100-0,7 / BH 160 / BH 160-4.8	23040K	C3040K 23040-2CS5K
H 3140	OH 3140H	180	200	M 200x3	150	250		KM 40	MB 40	10.82	3.95	M6	TE M6 01 or 02	HN 40	HMV 40E	BH 100-0,7 / BH 160 / BH 160-4.8	22240K	23140K C3140K 23140-2CS5K 22240-2CS5K
H 3140 L	OH 3140HL	180	200	M 200x3	150	240		KML 40	MBL 40	10.82	3.95	M6	TE M6 01 or 02	HN 38	HMV 40E	BH 100-0,7 / BH 160 / BH 160-4.8		23144-2CS5K
H 24040	OH 24040H	180	200	M 200x3	153	240		KML 40	MBL 40	10.20	3.95	M6	TE M6 01 or 02	HN 38	HMV 40E	BH 100-0,7 / BH 160 / BH 160-4.8	24040K30	
H 2340	OH 2340H	180	200	M 200x3	176	250		KM 40	MB 40	12.80	3.95	M6	TE M6 01 or 02	HN 40	HMV 40E	BH 100-0,7 / BH 160 / BH 160-4.8	22340K	23240K
H 2340 L	OH 2340HL	180	200	M 200x3	176	240		KML 40	MBL 40	12.16	3.95	M6	TE M6 01 or 02	HN 38	HMV 40E	BH 100-0,7 / BH 160 / BH 160-4.8		23240-2CS5K
H 24140	OH 24140H	180	200	M 200x3	185	250		KM 40	MB 40	13.40	3.95	M6	TE M6 01 or 02	HN 40	HMV 40E	BH 100-0,7 / BH 160 / BH 160-4.8	24140K30	
H 3944	OH 3944H	200	220	Tr 220x4	96	260		HM 3044	MS 3044	7.40	3.74	M6	TE M6 01 or 02	HN 40	HMV 44E	BH 100-0,7 / BH 160 / BH 160-4.8	23944K	
H 3044	OH 3044H	200	220	Tr 220x4	126	260		HM 3044	MS 3044	9.20	3.74	M6	TE M6 01 or 02	HN 40	HMV 44E	BH 100-0,7 / BH 160 / BH 160-4.8	23044K	C3044K 23044-2CS5K
H 3044 X	OH 3044XH	200	220	Tr 220x4	126	280		HM 44T	MB 44	11.60	3.74	M6	TE M6 01 or 02	HN 44	HMV 44E	BH 100-0,7 / BH 160 / BH 160-4.8	23044K	C3044K 23044-2CS5K
H 3144 TL	OH 3144HTL	200	220	Tr 220x4	156	260		HM 3044	MS 3044	13.20	3.74	M6	TE M6 01 or 02	HN 40	HMV 44E	BH 100-0,7 / BH 160 / BH 160-4.8	C3144K	23144-2CS5K
H 3144	OH 3144H	200	220	Tr 220x4	161	280		HM 3144	MS 3144-MS 3148	13.19	3.74	M6	TE M6 01 or 02	HN 44	HMV 44E	BH 100-0,7 / BH 160 / BH 160-4.8	22244K	23144K C2244K 22244-2CS5K
H 3144 X	OH 3144XH	200	220	Tr 220x4	161	280		HM 44T	MB 44	14.00	3.74	M6	TE M6 01 or 02	HN 44	HMV 44E	BH 100-0,7 / BH 160 / BH 160-4.8	22244K	23144K C2244K 22244-2CS5K
H 24044	OH 24044H	200	220	Tr 220x4	162	260		HM 3044	MS 3044	7.38	3.74	M6	TE M6 01 or 02	HN 40	HMV 44E	BH 100-0,7 / BH 160 / BH 160-4.8	24044K30	
H 2344	OH 2344H	200	220	Tr 220x4	186	280		HM 3144	MS 3144-MS 3148	15.40	3.74	M6	TE M6 01 or 02	HN 44	HMV 44E	BH 100-0,7 / BH 160 / BH 160-4.8	22344K	23244K 22344-2CS5K
H 2344 X	OH 2344XH	200	220	Tr 220x4	186	280		HM 44T	MB 44	15.80	3.74	M6	TE M6 01 or 02	HN 44	HMV 44E	BH 100-0,7 / BH 160 / BH 160-4.8	22344K	23244K 22344-2CS5K

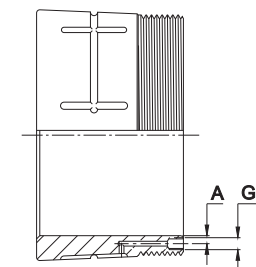
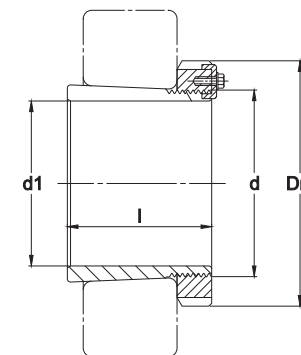
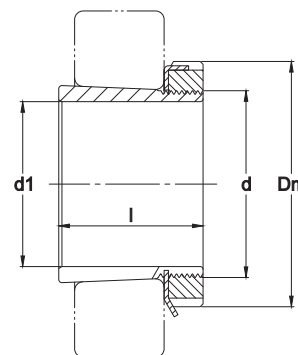
* Example of thread part number: TR 300 x 4, TR: Trapezoidal metric thread, 300: Thread diameter, 4: Thread pitch.

* Suffix TL: Sleeves series 3100 assembled with HM 3000 Lock nuts and MS 3000 Locking clips.



ADAPTER SLEEVES

H, OH...H - For Shafts in mm



ADAPTER SLEEVES H

ADAPTER SLEEVES H WITH HM/MS

REPRESENTATION OF THE OIL GROOVES FOR HYDRAULIC SLEEVES OH...H

Product	Hydraulic Part Number	d1 (mm)	d (mm)	Thread (mm)	l (mm)	Dm (mm)	P	Assembly Nut	Lockwasher / Locking Devices	Weight (Kg)	HYDRAULIC		ASSEMBLY AND WITHDRAWAL TOOL						
											A	G1	Extension Tube	Hook Spanner	Hydraulic Nut	Hydraulic Pump	Bearings		
H 24144	OH 24144H	200	220	Tr 220x4	199	280		HM 3144	MS 3144-MS 3148	16.00	3.74	M6	TE M6 01 or 02	HN 44	HMV 44E	BH 100-0,7 / BH 160 / BH 160-4.8	24144K30		
H 3948	OH 3948H	220	240	Tr 240x4	101	290		HM 3048	MS 3048-MS3052	9.80	3.74	M6	TE M6 01 or 02		HMV 48E	BH 100-0,7 / BH 160 / BH 160-4.8	23948K		
H 3048	OH 3048H	220	240	Tr 240x4	133	290		HM 3048	MS 3048-MS3052	12.00	3.74	M6	TE M6 01 or 02		HMV 48E	BH 100-0,7 / BH 160 / BH 160-4.8	23048K		
H 3048 E	OH 3048HE	220	240	Tr 240x4	133	290		HME 3048	MS 3052-48	12.00	3.74	M6	TE M6 01 or 02		HMV 48E	BH 100-0,7 / BH 160 / BH 160-4.8		C3048K	23048-2CS5K
H 3048 X	OH 3048XH	220	240	Tr 240x4	136	300		HM 48T	MB 48	12.00	3.74	M6	TE M6 01 or 02		HMV 48E	BH 100-0,7 / BH 160 / BH 160-4.8	23048K		
H 24048	OH 24048H	220	240	Tr 240x4	156.85	290		HM 3048	MS 3048-MS3052	24.50	3.74	M6	TE M6 01 or 02		HMV 48E	BH 100-0,7 / BH 160 / BH 160-4.8	24048K30		
H 3148 TL	OH 3148HTL	220	240	Tr 240x4	169	290		HM 3048	MS 3048-MS3052	15.80	3.74	M6	TE M6 01 or 02		HMV 48E	BH 100-0,7 / BH 160 / BH 160-4.8	C3148K		23148-2CS5K
H 3148	OH 3148H	220	240	Tr 240x4	172	300		HM 3148	MS 3144-MS 3148	15.80	3.74	M6	TE M6 01 or 02		HMV 48E	BH 100-0,7 / BH 160 / BH 160-4.8	22248K		23148K
H 3148 X	OH 3148XH	220	240	Tr 240x4	172	300		HM 48T	MB 48	16.60	3.74	M6	TE M6 01 or 02		HMV 48E	BH 100-0,7 / BH 160 / BH 160-4.8	22248K		23148K
H 2348	OH 2348H	220	240	Tr 240x4	199	300		HM 3148	MS 3144-MS 3148	18.00	3.74	M6	TE M6 01 or 02		HMV 48E	BH 100-0,7 / BH 160 / BH 160-4.8	22348K		23248K
H 2348 X	OH 2348XH	220	240	Tr 240x4	199	300		HM 48T	MB 48	18.80	3.74	M6	TE M6 01 or 02		HMV 48E	BH 100-0,7 / BH 160 / BH 160-4.8	22348K		23248K
H 24148	OH 24148H	220	240	Tr 240x4	201.85	300		HM 3148	MS 3144-MS 3148	15.80	3.74	M6	TE M6 01 or 02		HMV 48E	BH 100-0,7 / BH 160 / BH 160-4.8	24148K30		
H 3952	OH 3952H	240	260	Tr 260x4	116	310		HM 3052	MS 3048-MS3052	11.60	3.74	M6	TE M6 01 or 02		HMV 52E	BH 100-0,7 / BH 160 / BH 160-4.8	23952K		
H 3052	OH 3052H	240	260	Tr 260x4	145	310		HM 3052	MS 3048-MS3052	14.00	3.74	M6	TE M6 01 or 02		HMV 52E	BH 100-0,7 / BH 160 / BH 160-4.8	23052K		C3052K
H 3052 E	OH 3052HE	240	260	Tr 260x4	145	310		HME 3052	MS 3052-48	14.00	3.74	M6	TE M6 01 or 02		HMV 52E	BH 100-0,7 / BH 160 / BH 160-4.8		23052-2CS5K	
H 3052 X	OH 3052XH	240	260	Tr 260x4	150	330		HM 52T	MB 52	14.00	3.74	M6	TE M6 01 or 02		HMV 52E	BH 100-0,7 / BH 160 / BH 160-4.8		23052K	C3052K
H 24052	OH 24052H	240	260	Tr 260x4	179.4	310		HM 3052	MS 3048-MS3052	18.40	3.74	M6	TE M6 01 or 02		HMV 52E	BH 100-0,7 / BH 160 / BH 160-4.8	24052K30		
H 3152 TL	OH 3152HTL	240	260	Tr 260x4	185	310		HM 3052	MS 3048-MS3052	20.00	3.74	M6	TE M6 01 or 02		HMV 52E	BH 100-0,7 / BH 160 / BH 160-4.8	C3152K		23152-2CS5K
H 3152	OH 3152H	240	260	Tr 260x4	190	330		HM 3152	MS 3152-MS 3156	20.00	3.74	M6	TE M6 01 or 02		HMV 52E	BH 100-0,7 / BH 160 / BH 160-4.8	22252K		23152K
H 3152 X	OH 3152XH	240	260	Tr 260x4	190	330		HM 52T	MB 52	20.80	3.74	M6	TE M6 01 or 02		HMV 52E	BH 100-0,7 / BH 160 / BH 160-4.8	22252K		23152K
H 2352	OH 2352H	240	260	Tr 260x4	211	330		HM 3152	MS 3152-MS 3156	22.00	3.74	M6	TE M6 01 or 02		HMV 52E	BH 100-0,7 / BH 160 / BH 160-4.8	22352K		23252K
H 2352 X	OH 2352XH	240	260	Tr 260x4	211	330		HM 52T	MB 52	22.80	3.74	M6	TE M6 01 or 02		HMV 52E	BH 100-0,7 / BH 160 / BH 160-4.8	22352K		23252K
H 24152	OH 24152H	240	260	Tr 260x4	224.4	330		HM 3152	MS 3152-MS 3156	21.40	3.74	M6	TE M6 01 or 02		HMV 52E	BH 100-0,7 / BH 160 / BH 160-4.8	24152K30		
H 3956	OH 3956H	260	280	Tr 280x4	121	330		HM 3056	MS 3056	13.40	3.74	M6	TE M6 01 or 02		HMV 56E	BH 100-0,7 / BH 160 / BH 160-4.8	23956K		
H 3056	OH 3056H	260	280	Tr 280x4	152	330		HM 3056	MS 3056	16.00	3.74	M6	TE M6 01 or 02		HMV 56E	BH 100-0,7 / BH 160 / BH 160-4.8		23056K	C3056K
H 24056	OH 24056H	260	280	Tr 280x4	183.4	330		HM 3056	MS 3056	24.50	3.74	M6	TE M6 01 or 02		HMV 56E	BH 100-0,7 / BH 160 / BH 160-4.8	24056K30		
H 3156 TL	OH 3156HTL	260	280	Tr 280x4	192	330		HM 3056	MS 3056	22.60	3.74	M6	TE M6 01 or 02		HMV 56E	BH 100-0,7 / BH 160 / BH 160-4.8	C3156K		23156-2CS5K
H 3156	OH 3156H	260	280	Tr 280x4	195	350		HM 3156	MS 3152-MS 3156	22.60	3.74	M6	TE M6 01 or 02		HMV 56E	BH 100-0,7 / BH 160 / BH 160-4.8	22256K		23156K
H 3156 X	OH 3156XH	260	280	Tr 280x4	195	350		HM 56T	MB 56	23.00	3.74	M6	TE M6 01 or 02		HMV 56E	BH 100-0,7 / BH 160 / BH 160-4.8	22256K		23156K
H 2356	OH 2356H	260	280	Tr 280x4	224	350		HM 3156	MS 3152-MS 3156	25.40	3.74	M6	TE M6 01 or 02		HMV 56E	BH 100-0,7 / BH 160 / BH 160-4.8	22356K		23256K
H 2356 X	OH 2356XH	260	280	Tr 280x4	224	350		HM 56T	MB 56	26.00	3.74	M6	TE M6 01 or 02		HMV 56E	BH 100-0,7 / BH 160 / BH 160-4.8	22356K		23256K
H 24156	OH 24156H	260	280	Tr 280x4	238	350		HM 3156	MS 3152-MS 3156	26.50	3.74	M6	TE M6 01 or 02		HMV 56E	BH 100-0,7 / BH 160 / BH 160-4.8	24156K30		
H 3960	OH 3960H	280	300	Tr 300x4	140	360		HM 3060	MS 3060	19.80	3.73	M6	TE M6 01 or 02		HMV 60E	BH 100-0,7 / BH 160 / BH 160-4.8	23960K		
H 3060	OH 3060H	280	300	Tr 300x4	168	360		HM 3060	MS 3060	20.80	3.73	M6	TE M6 01 or 02		HMV 60E	BH 100-0,7 / BH 160 / BH 160-4.8	23060K		C3060K
H 24060	OH 24060H	280	300	Tr 300x4	208	360		HM 3060	MS 3060	30.20	3.73	M6	TE M6 01 or 02		HMV 60E	BH 100-0,7 / BH 160 / BH 160-4.8	24060K30		
H 3160	OH 3160H	280	300	Tr 300x4	208	380		HM 3160	MS 3160	27.40	3.73	M6	TE M6 01 or 02		HMV 60E	BH 100-0,7 / BH 160 / BH 160-4.8	22260K		23160K C3160K

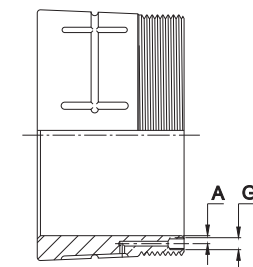
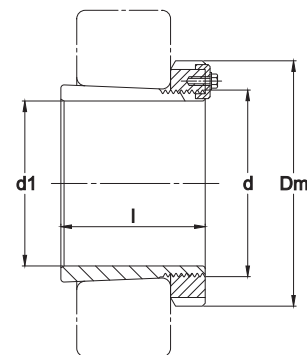
* Example of thread part number: TR 300 x 4, TR: Trapezoidal metric thread, 300: Thread diameter, 4: Thread pitch.

* Suffix TL: Sleeves series 3100 assembled with HM 3000 Lock nuts and MS 3000 Locking clips.



ADAPTER SLEEVES

H, OH...H - For Shafts in mm



ADAPTER SLEEVES H WITH HM/MS

REPRESENTATION OF THE OIL GROOVES FOR HYDRAULIC SLEEVES OH ...H

Product	Hydraulic Part Number	d1 (mm)	d (mm)	Thread (mm)	l (mm)	Dm (mm)	P	Assembly Nut	Lockwasher / Locking Devices	Weight (Kg)	HYDRAULIC		ASSEMBLY AND WITHDRAWAL TOOL				
											A	G1	Extension Tube	Hook Spanner	Hydraulic Nut	Hydraulic Pump	Bearings
H 3160 E	OH 3160HE	280	300	Tr 300x4	208	380		HME 3160	MS 3160	27.40	3.73	M6	TE M6 01 or 02	HMV 60E	BH 100-0,7 / BH 160 / BH 160-4.8		23160-2CS5K
H 3160 TL	OH 3160HTL	280	300	Tr 300x4	210	360		HM 3060	MS 3060	25.20	3.73	M6	TE M6 01 or 02	HMV 60E	BH 100-0,7 / BH 160 / BH 160-4.8		
H 3260	OH 3260H	280	300	Tr 300x4	240	380		HM 3160	MS 3160	34.10	3.73	M6	TE M6 01 or 02	HMV 60E	BH 100-0,7 / BH 160 / BH 160-4.8	23260K	22360K
H 24160	OH 24160H	280	300	Tr 300x4	258	380		HM 3160	MS 3160	36.00	3.73	M6	TE M6 01 or 02	HMV 60E	BH 100-0,7 / BH 160 / BH 160-4.8	24160K30	
H 3964	OH 3964H	300	320	Tr 320x5	140	380		HM 3064	MS 3064-MS 3068	19.20	3.47	M6	TE M6 01 or 02	HMV 64E	BH 100-0,7 / BH 160 / BH 160-4.8	23964K	
H 3064	OH 3064H	300	320	Tr 320x5	171	380		HM 3064	MS 3064-MS 3068	22.20	3.47	M6	TE M6 01 or 02	HMV 64E	BH 100-0,7 / BH 160 / BH 160-4.8	23064K	C3064K
H 24064	OH 24064H	300	320	Tr 320x5	220	380		HM 3064	MS 3064-MS 3068	30.00	3.47	M6	TE M6 01 or 02	HMV 64E	BH 100-0,7 / BH 160 / BH 160-4.8	24064K30	
H 3164	OH 3164H	300	320	Tr 320x5	226	400		HM 3164	MS 3164	31.80	3.47	M6	TE M6 01 or 02	HMV 64E	BH 100-0,7 / BH 160 / BH 160-4.8	22264K	23164K C3164K
H 3164 TL	OH 3164HTL	300	320	Tr 320x5	226	380		HM 3064	MS 3064-MS 3068	31.80	3.47	M6	TE M6 01 or 02	HMV 64E	BH 100-0,7 / BH 160 / BH 160-4.8		
H 3264	OH 3264H	300	320	Tr 320x5	258	400		HM 3164	MS 3164	36.00	3.47	M6	TE M6 01 or 02	HMV 64E	BH 100-0,7 / BH 160 / BH 160-4.8	23264K	22364K
H 24164	OH 24164H	300	320	Tr 320x5	278	400		HM 3164	MS 3164	38.00	3.47	M6	TE M6 01 or 02	HMV 64E	BH 100-0,7 / BH 160 / BH 160-4.8	24164K30	
H 3968	OH 3968H	320	340	Tr 340x5	144	400		HM 3068	MS 3064-MS 3068	23.50	3.47	M6	TE M6 01 or 02	HMV 68E	BH 100-0,7 / BH 160 / BH 160-4.8	23968K	
H 3068	OH 3068H	320	340	Tr 340x5	187	400		HM 3068	MS 3064-MS 3068	26.40	3.47	M6	TE M6 01 or 02	HMV 68E	BH 100-0,7 / BH 160 / BH 160-4.8	23068K	C3068K
H 24068	OH 24068H	320	340	Tr 340x5	231.6	400		HM 3068	MS 3064-MS 3068	30.20	3.47	M6	TE M6 01 or 02	HMV 68E	BH 100-0,7 / BH 160 / BH 160-4.8	24068K30	
H 3168 TL	OH 3168HTL	320	340	Tr 340x5	244	400		HM 3068	MS 3064-MS 3068	34.04	3.47	M6	TE M6 01 or 02	HMV 68E	BH 100-0,7 / BH 160 / BH 160-4.8		
H 3168	OH 3168H	320	340	Tr 340x5	254	440		HM 3168	MS 3168-MS 3172	45.40	3.47	M6	TE M6 01 or 02	HMV 68E	BH 100-0,7 / BH 160 / BH 160-4.8	23168K	C3168K
H 3168 E	OH 3168HE	320	340	Tr 340x5	254	440		HME 3168	MS 3172-68	45.40	3.47	M6	TE M6 01 or 02	HMV 68E	BH 100-0,7 / BH 160 / BH 160-4.8		23168-2CS5K
H 3268	OH 3268H	320	340	Tr 340x5	288	440		HM 3168	MS 3168-MS 3172	50.40	3.47	M6	TE M6 01 or 02	HMV 68E	BH 100-0,7 / BH 160 / BH 160-4.8	23268K	22368K
H 24168	OH 24168H	320	340	Tr 340x5	317	440		HM 3168	MS 3168-MS 3172	58.00	3.47	M6	TE M6 01 or 02	HMV 68E	BH 100-0,7 / BH 160 / BH 160-4.8	24168K30	
H 3972	OH 3972H	340	360	Tr 360x5	144	420		HM 3072	MS 3072	24.50	3.47	M6	TE M6 01 or 02	HMV 72E	BH 100-0,7 / BH 160 / BH 160-4.8	23972K	
H 3972 E	OH 3972HE	340	360	Tr 360x5	144	420		HME 3072	MS 3072	24.50	3.47	M6	TE M6 01 or 02	HMV 72E	BH 100-0,7 / BH 160 / BH 160-4.8		C3972K
H 3072	OH 3072H	340	360	Tr 360x5	188	420		HM 3072	MS 3072	27.40	3.47	M6	TE M6 01 or 02	HMV 72E	BH 100-0,7 / BH 160 / BH 160-4.8	23072K	C3072K
H 24072	OH 24072H	340	360	Tr 360x5	244	420		HM 3072	MS 3072	36.00	3.47	M6	TE M6 01 or 02	HMV 72E	BH 100-0,7 / BH 160 / BH 160-4.8	24072K30	
H 3172 TL	OH 3172HTL	340	360	Tr 360x5	246	420		HM 3072	MS 3072	36.60	3.47	M6	TE M6 01 or 02	HMV 72E	BH 100-0,7 / BH 160 / BH 160-4.8		
H 3172	OH 3172H	340	360	Tr 360x5	259	460		HM 3172	MS 3168-MS 3172	50.00	3.47	M6	TE M6 01 or 02	HMV 72E	BH 100-0,7 / BH 160 / BH 160-4.8	23172K	C3172K 22272K
H 3172 E	OH 3172HE	340	360	Tr 360x5	259	460		HME 3172	MS 3172-68	50.00	3.47	M6	TE M6 01 or 02	HMV 72E	BH 100-0,7 / BH 160 / BH 160-4.8		23172-2CS5K
H 3272	OH 3272H	340	360	Tr 360x5	299	460		HM 3172	MS 3168-MS 3172	55.80	3.47	M6	TE M6 01 or 02	HMV 72E	BH 100-0,7 / BH 160 / BH 160-4.8	23272K	22372K
H 24172	OH 24172H	340	360	Tr 360x5	321	460		HM 3172	MS 3168-MS 3172	60.00	3.47	M6	TE M6 01 or 02	HMV 72E	BH 100-0,7 / BH 160 / BH 160-4.8	24172K30	
H 3976	OH 3976H	360	380	Tr 380x5	164	450		HM 3076	MS 3076-MS 3080	29.00	3.47	M6	TE M6 01 or 02	HMV 76E	BH 100-0,7 / BH 160 / BH 160-4.8	23976K	
H 3976 E	OH 3976HE	360	380	Tr 380x5	164	450		HME 3076	MS 3080-76	29.00	3.47	M6	TE M6 01 or 02	HMV 76E	BH 100-0,7 / BH 160 / BH 160-4.8		C3976K
H 3076	OH 3076H	360	380	Tr 380x5	193	450		HM 3076	MS 3076-MS 3080	32.80	3.47	M6	TE M6 01 or 02	HMV 76E	BH 100-0,7 / BH 160 / BH 160-4.8	23076K	C3076K
H 24076	OH 24076H	360	380	Tr 380x5	235.6	450		HM 3076	MS 3076-MS 3080	41.00	3.47	M6	TE M6 01 or 02	HMV 76E	BH 100-0,7 / BH 160 / BH 160-4.8	24076K30	
H 3176 TL	OH 3176HTL	360	380	Tr 380x5	252	450		HM 3076	MS 3076-MS 3080	42.60	3.47	M6	TE M6 01 or 02	HMV 76E	BH 100-0,7 / BH 160 / BH 160-4.8		
H 3176	OH 3176H	360	380	Tr 380x5	264	490		HM 3176	MS 3176	56.20	3.47	M6	TE M6 01 or 02	HMV 76E	BH 100-0,7 / BH 160 / BH 160-4.8	23176K	
H 3176 E	OH 3176HE	360	380	Tr 380x5	264	490		HME 3176	MS 3176	56.20	3.47	M6	TE M6 01 or 02	HMV 76E	BH 100-0,7 / BH 160 / BH 160-4.8		C3176K
H 3276	OH 3276H	360	380	Tr 380x5	310	490		HM 3176	MS 3176	69.60	3.47	M6	TE M6 01 or 02	HMV 76E	BH 100-0,7 / BH 160 / BH 160-4.8	23276K	22376K

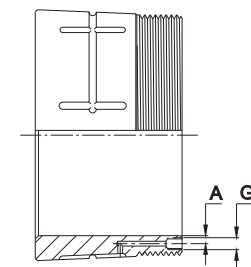
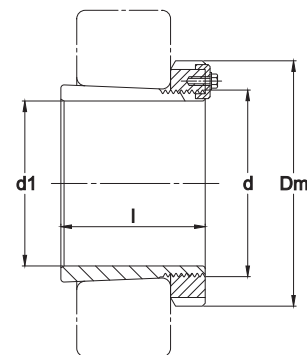
* Example of thread part number: TR 300 x 4, TR: Trapezoidal metric thread, 300: Thread diameter, 4: Thread pitch.

* Suffix TL: Sleeves series 3100 assembled with HM 3000 Lock nuts and MS 3000 Locking clips.



ADAPTER SLEEVES

H, OH...H - For Shafts in mm



ADAPTER SLEEVES H WITH HM/MS

REPRESENTATION OF THE OIL GROOVES FOR HYDRAULIC SLEEVES OH ...H

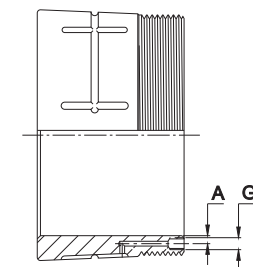
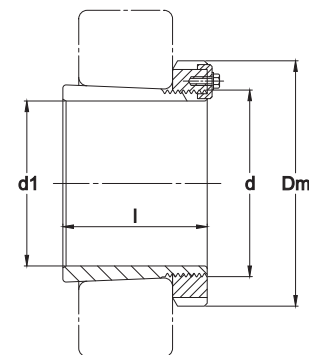
Product	Hydraulic Part Number	d1 (mm)	d (mm)	Thread (mm)	l (mm)	Dm (mm)	P	Assembly Nut	Lockwasher / Locking Devices	Weight (Kg)	HYDRAULIC		ASSEMBLY AND WITHDRAWAL TOOL				
											A	G1	Extension Tube	Hook Spanner	Hydraulic Nut	Hydraulic Pump	Bearings
H 24176	OH 24176H	360	380	Tr 380x5	310.6	490		HM 3176	MS 3176	32.80	3.47	M6	TE M6 01 or 02	HMV 76E	BH 100-0,7 / BH 160 / BH 160-4.8	24176K30	
H 3980	OH 3980H	380	400	Tr 400x5	168	470		HM 3080	MS 3076-MS 3080	35.00	3.47	M6	TE M6 01 or 02	HMV 80E	BH 100-0,7 / BH 160 / BH 160-4.8	23980K	
H 3980 E	OH 3980HE	380	400	Tr 400x5	168	470		HME 3080	MS 3080-76	35.00	3.47	M6	TE M6 01 or 02	HMV 80E	BH 100-0,7 / BH 160 / BH 160-4.8	23980K	C3980K
H 3080	OH 3080H	380	400	Tr 400x5	210	470		HM 3080	MS 3076-MS 3080	54.00	3.47	M6	TE M6 01 or 02	HMV 80E	BH 100-0,7 / BH 160 / BH 160-4.8	23080K	C3080K
H 3180 TL	OH 3180HTL	380	400	Tr 400x5	262	470		HM 3080	MS 3076-MS 3080	46.20	3.47	M6	TE M6 01 or 02	HMV 80E	BH 100-0,7 / BH 160 / BH 160-4.8	24080K30	
H 24080	OH 24080H	380	400	Tr 400x5	272	470		HM 3080	MS 3076-MS 3080	48.00	3.47	M6	TE M6 01 or 02	HMV 80E	BH 100-0,7 / BH 160 / BH 160-4.8	24080K30	
H 3180	OH 3180H	380	400	Tr 400x5	272	520		HM 3180	MS 3180-MS 3184	63.80	3.47	M6	TE M6 01 or 02	HMV 80E	BH 100-0,7 / BH 160 / BH 160-4.8	23180K	C3180K
H 3180 E	OH 3180HE	380	400	Tr 400x5	272	520		HME 3180	MS 3184-80	63.80	3.47	M6	TE M6 01 or 02	HMV 80E	BH 100-0,7 / BH 160 / BH 160-4.8	23180K	C3180K
H 3280	OH 3280H	380	400	Tr 400x5	328	520		HM 3180	MS 3180-MS 3184	75.20	3.47	M6	TE M6 01 or 02	HMV 80E	BH 100-0,7 / BH 160 / BH 160-4.8	23280K	22380K
H 24180	OH 24180H	380	400	Tr 400x5	332	520		HM 3180	MS 3180-MS 3184	75.20	3.47	M6	TE M6 01 or 02	HMV 80E	BH 100-0,7 / BH 160 / BH 160-4.8	24180K30	
H 3984	OH 3984H	400	420	Tr 420x5	168	490		HM 3084	MS 3084	36.60	3.47	M6	TE M6 01 or 02	HMV 84E	BH 100-0,7 / BH 160 / BH 160-4.8	23984K	
H 3984 E	OH 3984HE	400	420	Tr 420x5	168	490		HME 3084	MS 3084	36.60	3.47	M6	TE M6 01 or 02	HMV 84E	BH 100-0,7 / BH 160 / BH 160-4.8	23984K	C3984K
H 3084	OH 3084H	400	420	Tr 420x5	212	490		HM 3084	MS 3084	40.00	3.47	M6	TE M6 01 or 02	HMV 84E	BH 100-0,7 / BH 160 / BH 160-4.8	23084K	C3084K
H 24084	OH 24084H	400	420	Tr 420x5	274	490		HM 3084	MS 3084	56.00	3.47	M6	TE M6 01 or 02	HMV 84E	BH 100-0,7 / BH 160 / BH 160-4.8	24084K30	
H 3184 TL	OH 3184HTL	400	420	Tr 420x5	286	490		HM 3084	MS 3084	60.60	3.47	M6	TE M6 01 or 02	HMV 84E	BH 100-0,7 / BH 160 / BH 160-4.8	24084K30	
H 3184	OH 3184H	400	420	Tr 420x5	304	540		HM 3184	MS 3180-MS 3184	77.40	3.47	M6	TE M6 01 or 02	HMV 84E	BH 100-0,7 / BH 160 / BH 160-4.8	23184K	C3184K
H 3284	OH 3284H	400	420	Tr 420x5	352	540		HM 3184	MS 3180-MS 3184	86.00	3.47	M6	TE M6 01 or 02	HMV 84E	BH 100-0,7 / BH 160 / BH 160-4.8	23284K	
H 24184	OH 24184H	400	420	Tr 420x5	372	540		HM 3184	MS 3180-MS 3184	88.00	3.47	M6	TE M6 01 or 02	HMV 84E	BH 100-0,7 / BH 160 / BH 160-4.8	24184K30	
H 3988	OH 3988H	410	440	Tr 440x5	189	520		HM 3088	MS 3088-MS 3092	57.30	5.96	M8	TE M8 01	HMV 88E	BH 100-0,7 / BH 160 / BH 160-4.8	23988K	
H 3988 E	OH 3988HE	410	440	Tr 440x5	189	520		HME 3088	MS 3092-88	57.30	5.96	M8	TE M8 01	HMV 88E	BH 100-0,7 / BH 160 / BH 160-4.8	23988K	C3988K
H 3088	OH 3088H	410	440	Tr 440x5	228	520		HM 3088	MS 3088-MS 3092	59.40	5.96	M8	TE M8 01	HMV 88E	BH 100-0,7 / BH 160 / BH 160-4.8	23088K	
H 3088 E	OH 3088HE	410	440	Tr 440x5	228	520		HME 3088	MS 3092-88	59.40	5.96	M8	TE M8 01	HMV 88E	BH 100-0,7 / BH 160 / BH 160-4.8	23088K	C3088K
H 24088	OH 24088H	410	440	Tr 440x5	294	520		HM 3088	MS 3088-MS 3092	77.00	5.96	M8	TE M8 01	HMV 88E	BH 100-0,7 / BH 160 / BH 160-4.8	24088K30	
H 3188 TL	OH 3188HTL	410	440	Tr 440x5	297	520		HM 3088	MS 3088-MS 3092	77.00	5.96	M8	TE M8 01	HMV 88E	BH 100-0,7 / BH 160 / BH 160-4.8	24088K30	
H 3188	OH 3188H	410	440	Tr 440x5	307	560		HM 3188	MS 3188-MS 3192	94.60	5.96	M8	TE M8 01	HMV 88E	BH 100-0,7 / BH 160 / BH 160-4.8	23188K	
H 3188 E	OH 3188HE	410	440	Tr 440x5	307	560		HME 3188	MS 3192-88	94.60	5.96	M8	TE M8 01	HMV 88E	BH 100-0,7 / BH 160 / BH 160-4.8	23188K	C3188K
H 3288	OH 3288H	410	440	Tr 440x5	361	560		HM 3188	MS 3188-MS 3192	110.40	5.96	M8	TE M8 01	HMV 88E	BH 100-0,7 / BH 160 / BH 160-4.8	23288K	
H 24188	OH 24188H	410	440	Tr 440x5	372	560		HM 3188	MS 3188-MS 3192	120.00	5.96	M8	TE M8 01	HMV 88E	BH 100-0,7 / BH 160 / BH 160-4.8	24188K30	
H 3992	OH 3992H	430	460	Tr 460x5	189	540		HM 3092	MS 3088-MS 3092	59.90	5.96	M8	TE M8 01	HMV 92E	BH 100-0,7 / BH 160 / BH 160-4.8	23992K	C3992K
H 3092	OH 3092H	430	460	Tr 460x5	234	540		HM 3092	MS 3088-MS 3092	64.40	5.96	M8	TE M8 01	HMV 92E	BH 100-0,7 / BH 160 / BH 160-4.8	23092K	C3092K
H 24092	OH 24092H	430	460	Tr 460x5	300	540		HM 3092	MS 3088-MS 3092	80.00	5.96	M8	TE M8 01	HMV 92E	BH 100-0,7 / BH 160 / BH 160-4.8	24092K30	
H 3192 TL	OH 3192TLH	430	460	Tr 460x5	311	540		HM 3092	MS 3088-MS 3092	84.80	5.96	M8	TE M8 01	HMV 92E	BH 100-0,7 / BH 160 / BH 160-4.8	24092K30	
H 3192	OH 3192H	430	460	Tr 460x5	326	580		HM 3192	MS 3188-MS 3192	107.60	5.96	M8	TE M8 01	HMV 92E	BH 100-0,7 / BH 160 / BH 160-4.8	23192K	C3192K
H 3292	OH 3292H	430	460	Tr 460x5	382	580		HM 3192	MS 3188-MS 3192	132.00	5.96	M8	TE M8 01	HMV 92E	BH 100-0,7 / BH 160 / BH 160-4.8	23292K	
H 24192	OH 24192H	430	460	Tr 460x5	398	580		HM 3192	MS 3188-MS 3192	135.00	5.96	M8	TE M8 01	HMV 92E	BH 100-0,7 / BH 160 / BH 160-4.8	24192K30	

* Example of thread part number: TR 300 x 4, TR: Trapezoidal metric thread, 300: Thread diameter, 4: Thread pitch.

* Suffix TL: Sleeves series 3100 assembled with HM 3000 Lock nuts and MS 3000 Locking clips.



ADAPTER SLEEVES H, OH ...H - For Shafts in mm



ADAPTER SLEEVES H WITH HM/MS

REPRESENTATION OF THE OIL GROOVES FOR HYDRAULIC SLEEVES OH ...H

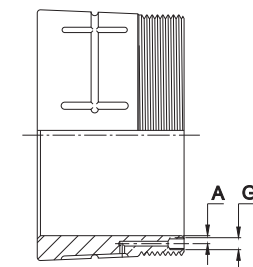
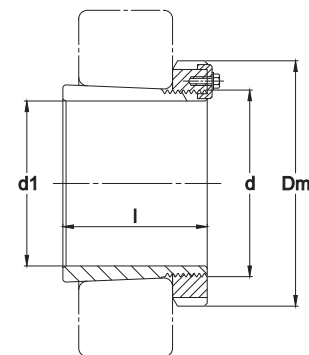
Product	Hydraulic Part Number	d1 (mm)	d (mm)	Thread (mm)	l (mm)	Dm (mm)	P	Assembly Nut	Lockwasher / Locking Devices	Weight (Kg)	HYDRAULIC		Extension Tube	ASSEMBLY AND WITHDRAWAL TOOL			Bearings
											A	G1		Hook Spanner	Hydraulic Nut	Hydraulic Pump	
H 3996	OH 3996H	450	480	Tr 480x5	200	560		HM 3096	MS 3096-30/500	59.20	5.96	M8	TE M8 01	HMV 96E	BH 100-0,7 / BH 160 / BH 160-4.8	23996K	
H 3996 E	OH 3996HE	450	480	Tr 480x5	200	560		HME 3096	MS 30/500-96	59.20	5.96	M8	TE M8 01	HMV 96E	BH 100-0,7 / BH 160 / BH 160-4.8		C3996K
H 3096	OH 3096H	450	480	Tr 480x5	237	560		HM 3096	MS 3096-30/500	67.20	5.96	M8	TE M8 01	HMV 96E	BH 100-0,7 / BH 160 / BH 160-4.8	23096K	C3096K
H 24096	OH 24096H	450	480	Tr 480x5	301	560		HM 3096	MS 3096-30/500	80.00	5.96	M8	TE M8 01	HMV 96E	BH 100-0,7 / BH 160 / BH 160-4.8	24096K30	
H 3196 TL	OH 3196HTL	450	480	Tr 480x5	320	560		HM 3096	MS 3096-30/500	89.70	5.96	M8	TE M8 01	HMV 96E	BH 100-0,7 / BH 160 / BH 160-4.8		
H 3196	OH 3196H	450	480	Tr 480x5	335	620		HM 3196	MS 3196	123.40	5.96	M8	TE M8 01	HMV 96E	BH 100-0,7 / BH 160 / BH 160-4.8	23196K	
H 3196 E	OH 3196HE	450	480	Tr 480x5	335	620		HME 3196	MS 3196	123.40	5.96	M8	TE M8 01	HMV 96E	BH 100-0,7 / BH 160 / BH 160-4.8		C3196K
H 3296	OH 3296H	450	480	Tr 480x5	397	620		HM 3196	MS 3196	152.00	5.96	M8	TE M8 01	HMV 96E	BH 100-0,7 / BH 160 / BH 160-4.8	23296K	
H 24196	OH 24196H	450	480	Tr 480x5	408	620		HM 3196	MS 3196	152.00	5.96	M8	TE M8 01	HMV 96E	BH 100-0,7 / BH 160 / BH 160-4.8	24196K30	
H 39/500	OH 39/500H	470	500	Tr 500x5	208	580		HM 30/500	MS 3096-30/500	73.10	5.96	M8	TE M8 01	HMV 100E	BH 100-0,7 / BH 160 / BH 160-4.8	239/500K	
H 39/500 E	OH 39/500HE	470	500	Tr 500x5	208	580		HME 30/500	MS 30/500-96	73.10	5.96	M8	TE M8 01	HMV 100E	BH 100-0,7 / BH 160 / BH 160-4.8		C39/500K
H 30/500	OH 30/500H	470	500	Tr 500x5	247	580		HM 30/500	MS 3096-30/500	75.60	5.96	M8	TE M8 01	HMV 100E	BH 100-0,7 / BH 160 / BH 160-4.8	230/500K	C30/500K
H 240/500	OH 240/500H	470	500	Tr 500x5	309	580		HM 30/500	MS 3096-30/500	90.00	5.96	M8	TE M8 01	HMV 100E	BH 100-0,7 / BH 160 / BH 160-4.8	240/500K30	
H 31/500 TL	OH 31/500HTL	470	500	Tr 500x5	344	580		HM 30/500	MS 3096-30/500	103.80	5.96	M8	TE M8 01	HMV 100E	BH 100-0,7 / BH 160 / BH 160-4.8		
H 31/500	OH 31/500H	470	500	Tr 500x5	356	630		HM 31/500	MS 31/500	131.80	5.96	M8	TE M8 01	HMV 100E	BH 100-0,7 / BH 160 / BH 160-4.8	231/500K	C31/500K
H 32/500	OH 32/500H	470	500	Tr 500x5	428	630		HM 31/500	MS 31/500	166.00	5.96	M8	TE M8 01	HMV 100E	BH 100-0,7 / BH 160 / BH 160-4.8	232/500K	
H 241/500	OH 241/500H	470	500	Tr 500x5	430	630		HM 31/500	MS 31/500	162.00	5.96	M8	TE M8 01	HMV 100E	BH 100-0,7 / BH 160 / BH 160-4.8	241/500K30	
H 39/530	OH 39/530H	500	530	Tr 530x6	216	630		HM 30/530	MS 30/530-600	86.90	5.58	M8	TE M8 01	HMV 106E	BH 100-0,7 / BH 160 / BH 160-4.8	239/530K	
H 39/530 E	OH 39/530HE	500	530	Tr 530x6	216	630		HME 30/530	MS 30/600-530	86.90	5.58	M8	TE M8 01	HMV 106E	BH 100-0,7 / BH 160 / BH 160-4.8		C39/530K
H 30/530	OH 30/530H	500	530	Tr 530x6	265	630		HM 30/530	MS 30/530-600	92.20	5.58	M8	TE M8 01	HMV 106E	BH 100-0,7 / BH 160 / BH 160-4.8	230/530K	C30/530K
H 240/530	OH 240/530H	500	530	Tr 530x6	343	630		HM 30/530	MS 30/530-600	114.00	5.58	M8	TE M8 01	HMV 106E	BH 160 / BH 160-4.8	240/530K30	
H 31/530 TL	OH 31/530HTL	500	530	Tr 530x6	352	630		HM 30/530	MS 30/530-600	119.80	5.58	M8	TE M8 01	HMV 106E	BH 100-0,7 / BH 160 / BH 160-4.8		
H 31/530	OH 31/530H	500	530	Tr 530x6	364	670		HM 31/530	MS 31/530	147.40	5.58	M8	TE M8 01	HMV 106E	BH 100-0,7 / BH 160 / BH 160-4.8	231/530K	C31/530K
H 241/530	OH 241/530H	500	530	Tr 530x6	440	670		HM 31/530	MS 31/530	191.00	5.58	M8	TE M8 01	HMV 106E	BH 160 / BH 160-4.8	241/530K30	
H 32/530	OH 32/530H	500	530	Tr 530x6	447	670		HM 31/530	MS 31/530	191.00	5.58	M8	TE M8 01	HMV 106E	BH 100-0,7 / BH 160 / BH 160-4.8	232/530K	
H 39/560	OH 39/560H	530	560	Tr 560x6	227	650		HM 30/560	MS 30/560	93.30	5.57	M8	TE M8 01	HMV 112E	BH 100-0,7 / BH 160 / BH 160-4.8	239/560K	
H 39/560 E	OH 39/560HE	530	560	Tr 560x6	227	650		HME 30/560	MS 30/560	93.30	5.57	M8	TE M8 01	HMV 112E	BH 100-0,7 / BH 160 / BH 160-4.8		C39/560K
H 30/560	OH 30/560H	530	560	Tr 560x6	282	650		HM 30/560	MS 30/560	110.00	5.57	M8	TE M8 01	HMV 112E	BH 100-0,7 / BH 160 / BH 160-4.8	230/560K	C30/560K
H 240/560	OH 240/560H	530	560	Tr 560x6	358	650		HM 30/560	MS 30/560	152.00	5.57	M8	TE M8 01	HMV 112E	BH 160 / BH 160-4.8	240/560K30	
H 31/560 TL	OH 31/560HTL	530	560	Tr 560x6	367	650		HM 30/560	MS 30/560	157.40	5.57	M8	TE M8 01	HMV 112E	BH 100-0,7 / BH 160 / BH 160-4.8		
H 31/560	OH 31/560H	530	560	Tr 560x6	377	710		HM 31/560	MS 31/560-600	185.00	5.57	M8	TE M8 01	HMV 112E	BH 100-0,7 / BH 160 / BH 160-4.8	231/560K	
H 31/560 E	OH 31/560HE	530	560	Tr 560x6	377	710		HME 31/560	MS 31/600-560	185.00	5.57	M8	TE M8 01	HMV 112E	BH 100-0,7 / BH 160 / BH 160-4.8		C31/560K
H 31/600 E	OH 31/600HE	530	600	Tr 600x6	377	750		HME 31/600	MS 31/600-560	234.00	8.07	G1/8	TE 1/8BSP01	HMV 120E	BH 100-0,7 / BH 160 / BH 160-4.8		C31/600K
H 32/560	OH 32/560H	530	560	Tr 560x6	462	710		HM 31/560	MS 31/560-600	217.00	5.57	M8	TE M8 01	HMV 112E	BH 100-0,7 / BH 160 / BH 160-4.8	232/560K	
H 241/560	OH 241/560H	530	560	Tr 560x6	468	710		HM 31/560	MS 31/560-600	217.00	5.57	M8	TE M8 01	HMV 112E	BH 160 / BH 160-4.8	241/560K30	
H 39/600	OH 39/600H	560	600	Tr 600x6	239	700		HM 30/600	MS 30/530-600	127.00	8.07	G1/8	TE 1/8BSP01	HMV 120E	BH 100-0,7 / BH 160 / BH 160-4.8	239/600K	

* Example of thread part number: TR 300 x 4, TR: Trapezoidal metric thread, 300: Thread diameter, 4: Thread pitch.

* Suffix TL: Sleeves series 3100 assembled with HM 3000 Lock nuts and MS 3000 Locking clips.



ADAPTER SLEEVES H, OH...H - For Shafts in mm



ADAPTER SLEEVES H WITH HM/MS

REPRESENTATION OF THE OIL GROOVES FOR HYDRAULIC SLEEVES OH...H

Product	Hydraulic Part Number	d1 (mm)	d (mm)	Thread (mm)	l (mm)	Dm (mm)	P	Assembly Nut	Lockwasher / Locking Devices	Weight (Kg)	HYDRAULIC		ASSEMBLY AND WITHDRAWAL TOOL			
											A	G1	Extension Tube	Hook Spanner	Hydraulic Nut	Hydraulic Pump
H 39/600 E	OH 39/600HE	560	600	Tr 600x6	239	700		HME 30/600	MS 30/600-530	127.00	8.07	G1/8	TE 1/8BSP01	HMV 120E	BH 100-0,7 / BH 160 / BH 160-4.8	C39/600K
H 30/600	OH 30/600H	560	600	Tr 600x6	289	700		HM 30/600	MS 30/530-600	134.40	8.07	G1/8	TE 1/8BSP01	HMV 120E	BH 100-0,7 / BH 160 / BH 160-4.8	230/600K C30/600K
H 240/600	OH 240/600H	560	600	Tr 600x6	377	700		HM 30/600	MS 30/530-600	180.00	8.07	G1/8	TE 1/8BSP01	HMV 120E	BH 160 / BH 160-4.8	240/600K30
H 31/600 TL	OH 31/600HTL	560	600	Tr 600x6	389	700		HM 30/600	MS 30/530-600	189.10	8.07	G1/8	TE 1/8BSP01	HMV 120E	BH 100-0,7 / BH 160 / BH 160-4.8	
H 31/600	OH 31/600H	560	600	Tr 600x6	399	750		HM 31/600	MS 31/560-600	234.00	8.07	G1/8	TE 1/8BSP01	HMV 120E	BH 100-0,7 / BH 160 / BH 160-4.8	231/600K
H 32/600	OH 32/600H	560	600	Tr 600x6	487	750		HM 31/600	MS 31/560-600	278.00	8.07	G1/8	TE 1/8BSP01	HMV 120E	BH 100-0,7 / BH 160 / BH 160-4.8	232/600K
H 241/600	OH 241/600H	560	600	Tr 600x6	490	750		HM 31/600	MS 31/560-600	175.00	8.07	G1/8	TE 1/8BSP01	HMV 120E	BH 160 / BH 160-4.8	241/600K30
H 39/630	OH 39/630H	600	630	Tr 630x6	254	730		HM 30/630	MS 30/630	110.00	5.57	G1/8	TE 1/8BSP01	HMV 126E	BH 100-0,7 / BH 160 / BH 160-4.8	239/630K
H 39/630 E	OH 39/630HE	600	630	Tr 630x6	254	730		HME 30/630	MS 30/630	110.00	5.57	G1/8	TE 1/8BSP01	HMV 126E	BH 100-0,7 / BH 160 / BH 160-4.8	C39/630K
H 30/630	OH 30/630H	600	630	Tr 630x6	301	730		HM 30/630	MS 30/630	126.20	5.57	G1/8	TE 1/8BSP01	HMV 126E	BH 100-0,7 / BH 160 / BH 160-4.8	230/630K C30/630K
H 240/630	OH 240/630H	600	630	Tr 630x6	395	730		HM 30/630	MS 30/630	170.00	5.57	M8	TE M8 01	HMV 126E	BH 160 / BH 160-4.8	240/630K30
H 31/630 TL	OH 31/630HTL	600	630	Tr 630x6	404	730		HM 30/630	MS 30/630	176.40	5.57	G1/8	TE 1/8BSP01	HMV 126E	BH 100-0,7 / BH 160 / BH 160-4.8	
H 31/630	OH 31/630H	600	630	Tr 630x6	424	800		HM 31/630	MS 31/630	231.20	5.57	G1/8	TE 1/8BSP01	HMV 126E	BH 100-0,7 / BH 160 / BH 160-4.8	231/630K
H 31/630 E	OH 31/630HE	600	630	Tr 630x6	424	800		HME 31/630	MS 31/630	231.20	5.57	G1/8	TE 1/8BSP01	HMV 126E	BH 100-0,7 / BH 160 / BH 160-4.8	C31/630K
H 32/630	OH 32/630H	600	630	Tr 630x6	521	800		HM 31/630	MS 31/630	298.00	5.57	G1/8	TE 1/8BSP01	HMV 126E	BH 100-0,7 / BH 160 / BH 160-4.8	232/630K
H 241/630	OH 241/630H	600	630	Tr 630x6	525	800		HM 31/630	MS 31/630	298.00	5.57	M8	TE M8 01	HMV 126E	BH 160 / BH 160-4.8	241/630K30
H 39/670	OH 39/670H	630	670	Tr 670x6	264	780		HM 30/670	MS 30/670	163.00	8.07	G1/8	TE 1/8BSP01	HMV 134E	BH 100-0,7 / BH 160 / BH 160-4.8	239/670K C39/670K
H 30/670	OH 30/670H	630	670	Tr 670x6	324	780		HM 30/670	MS 30/670	191.00	8.07	G1/8	TE 1/8BSP01	HMV 134E	BH 100-0,7 / BH 160 / BH 160-4.8	230/670K C30/670K
H 240/670	OH 240/670H	630	670	Tr 670x6	418	780		HM 30/670	MS 30/670	230.00	8.07	G1/8	TE 1/8BSP01	HMV 134E	BH 160 / BH 160-4.8	240/670K30
H 31/670 TL	OH 31/670HTL	630	670	Tr 670x6	430	780		HM 30/670	MS 30/670	248.20	8.07	G1/8	TE 1/8BSP01	HMV 134E	BH 100-0,7 / BH 160 / BH 160-4.8	
H 31/670	OH 31/670H	630	670	Tr 670x6	456	850		HM 31/670	MS 31/670	344.00	8.07	G1/8	TE 1/8BSP01	HMV 134E	BH 100-0,7 / BH 160 / BH 160-4.8	231/670K
H 31/670 E	OH 31/670HE	630	670	Tr 670x6	456	850		HME 31/670	MS 31/670	344.00	8.07	G1/8	TE 1/8BSP01	HMV 134E	BH 100-0,7 / BH 160 / BH 160-4.8	C31/670K
H 241/670	OH 241/670H	630	670	Tr 670x6	548	850		HM 31/670	MS 31/670	355.00	8.07	G1/8	TE 1/8BSP01	HMV 134E	BH 160 / BH 160-4.8	241/670K30
H 32/670	OH 32/670H	630	670	Tr 670x6	558	850		HM 31/670	MS 31/670	404.00	8.07	G1/8	TE 1/8BSP01	HMV 134E	BH 100-0,7 / BH 160 / BH 160-4.8	232/670K
H 39/710	OH 39/710H	670	710	Tr 710x7	286	830		HM 30/710	MS 30/710	196.00	7.80	G1/8	TE 1/8BSP01	HMV 142E	BH 160 / BH 160-4.8	239/710K
H 39/710 E	OH 39/710HE	670	710	Tr 710x7	286	830		HME 30/710	MS 30/710	196.00	7.80	G1/8	TE 1/8BSP01	HMV 142E	BH 160 / BH 160-4.8	C39/710K
H 30/710	OH 30/710H	670	710	Tr 710x7	342	830		HM 30/710	MS 30/710	223.00	7.80	G1/8	TE 1/8BSP01	HMV 142E	BH 160 / BH 160-4.8	230/710K C30/710K
H 30/710 E	OH 30/710HE	670	710	Tr 710x7	342	830		HME 30/710	MS 30/710	223.00	7.80	G1/8	TE 1/8BSP01	HMV 142E	BH 160 / BH 160-4.8	C30/710K
H 240/710	OH 240/710H	670	710	Tr 710x7	438	830		HM 30/710	MS 30/710	285.00	7.80	G1/8	TE 1/8BSP01	HMV 142E	BH 160 / BH 160-4.8	240/710K30
H 31/710 TL	OH 31/710HTL	670	710	Tr 710x7	451	830		HM 30/710	MS 30/710	288.70	7.80	G1/8	TE 1/8BSP01	HMV 142E	BH 160 / BH 160-4.8	
H 31/710	OH 31/710H	670	710	Tr 710x7	467	900		HM 31/710	MS 31/710	378.00	7.80	G1/8	TE 1/8BSP01	HMV 142E	BH 160 / BH 160-4.8	231/710K
H 31/710 E	OH 31/710HE	670	710	Tr 710x7	467	900		HME 31/710	MS 31/710	378.00	7.80	G1/8	TE 1/8BSP01	HMV 142E	BH 160 / BH 160-4.8	C31/710K
H 32/710	OH 32/710H	670	710	Tr 710x7	572	900		HM 31/710	MS 31/710	444.00	7.80	G1/8	TE 1/8BSP01	HMV 142E	BH 160 / BH 160-4.8	232/710K
H 241/710	OH 241/710H	670	710	Tr 710x7	577	900		HM 31/710	MS 31/710	444.00	7.80	G1/8	TE 1/8BSP01	HMV 142E	BH 160 / BH 160-4.8	241/710K30
H 39/750	OH 39/750H	710	750	Tr 750x7	291	870		HM 30/750	MS 30/750-800	209.00	7.80	G1/8	TE 1/8BSP01	HMV 150E	BH 160 / BH 160-4.8	239/750K
H 39/750 E	OH 39/750HE	710	750	Tr 750x7	291	870		HME 30/750	MS 30/800-750	209.00	7.80	G1/8	TE 1/8BSP01	HMV 150E	BH 160 / BH 160-4.8	C39/750K

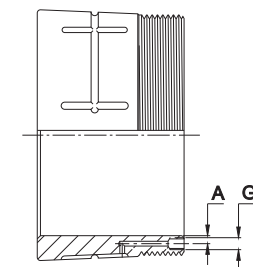
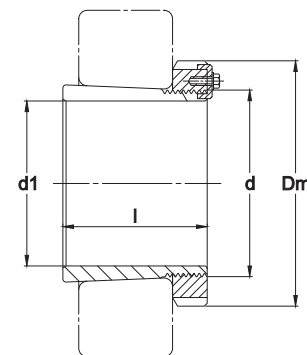
* Example of thread part number: TR 300 x 4, TR: Trapezoidal metric thread, 300: Thread diameter, 4: Thread pitch.

* Suffix TL: Sleeves series 3100 assembled with HM 3000 Lock nuts and MS 3000 Locking clips.



ADAPTER SLEEVES

H, OH...H - For Shafts in mm



ADAPTER SLEEVES H WITH HM/MS

REPRESENTATION OF THE OIL GROOVES FOR HYDRAULIC SLEEVES OH...H

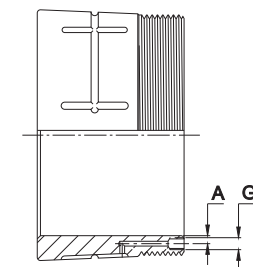
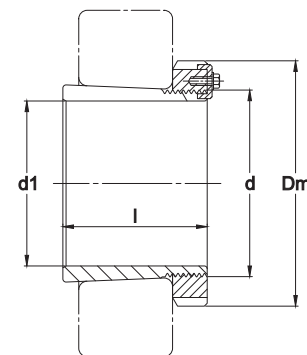
Product	Hydraulic Part Number	d1 (mm)	d (mm)	Thread (mm)	l (mm)	Dm (mm)	P	Assembly Nut	Lockwasher / Locking Devices	Weight (Kg)	HYDRAULIC		ASSEMBLY AND WITHDRAWAL TOOL				
											A	G1	Extension Tube	Hook Spanner	Hydraulic Nut	Hydraulic Pump	Bearings
H 30/750	OH 30/750H	710	750	Tr 750x7	356	870		HM 30/750	MS 30/750-800	243.00	7.80	G1/8	TE 1/8BSP01	HMV 150E	BH 160 / BH 160-4.8	230/750K	
H 30/750 E	OH 30/750HE	710	750	Tr 750x7	356	870		HME 30/750	MS 30/750-800	243.00	7.80	G1/8	TE 1/8BSP01	HMV 150E	BH 160 / BH 160-4.8	230/750K	C30/750K
H 240/750	OH 240/750H	710	750	Tr 750x7	460	870		HM 30/750	MS 30/750-800	332.60	7.80	G1/8	TE 1/8BSP01	HMV 150E	BH 160 / BH 160-4.8	240/750K30	
H 31/750 TL	OH 31/750HTL	710	750	Tr 750x7	471	870		HM 30/750	MS 30/750-800	332.60	7.80	G1/8	TE 1/8BSP01	HMV 150E	BH 160 / BH 160-4.8	231/750K	
H 31/750	OH 31/750H	710	750	Tr 750x7	493	950		HM 31/750	MS 31/750-800	452.00	7.80	G1/8	TE 1/8BSP01	HMV 150E	BH 160 / BH 160-4.8	C31/710K	
H 31/750 E	OH 31/750HE	710	750	Tr 750x7	493	950		HME 31/750	MS 31/750-800	452.00	7.80	G1/8	TE 1/8BSP01	HMV 150E	BH 160 / BH 160-4.8	C31/750K	
H 32/750	OH 32/750H	710	750	Tr 750x7	603	950		HM 31/750	MS 31/750-800	507.00	7.80	G1/8	TE 1/8BSP01	HMV 150E	BH 160 / BH 160-4.8	232/750K	
H 241/750	OH 241/750H	710	750	Tr 750x7	622	950		HM 31/750	MS 31/750-800	507.00	7.80	G1/8	TE 1/8BSP01	HMV 150E	BH 160 / BH 160-4.8	241/750K30	
H 39/800	OH 39/800H	750	800	Tr 800x7	303	920		HM 30/800	MS 30/750-800	237.80	10.30	G1/8	TE 1/8BSP01	HMV 160E	BH 160 / BH 160-4.8	239/800K	
H 39/800 E	OH 39/800HE	750	800	Tr 800x7	303	920		HME 30/800	MS 30/800-750	237.80	10.30	G1/8	TE 1/8BSP01	HMV 160E	BH 160 / BH 160-4.8	239/800K	C39/800K
H 30/800	OH 30/800H	750	800	Tr 800x7	366	920		HM 30/800	MS 30/750-800	235.60	10.30	G1/8	TE 1/8BSP01	HMV 160E	BH 160 / BH 160-4.8	230/800K	
H 30/800 E	OH 30/800HE	750	800	Tr 800x7	366	920		HME 30/800	MS 30/800-750	235.60	10.30	G1/8	TE 1/8BSP01	HMV 160E	BH 160 / BH 160-4.8	230/800K	C30/800K
H 240/800	OH 240/800H	750	800	Tr 800x7	475	920		HM 30/800	MS 30/750-800	388.20	10.30	G1/8	TE 1/8BSP01	HMV 160E	BH 160-4.8	240/800K30	
H 31/800 TL	OH 31/800HTL	750	800	Tr 800x7	483	920		HM 30/800	MS 30/750-800	388.20	10.30	G1/8	TE 1/8BSP01	HMV 160E	BH 160 / BH 160-4.8	231/800K	
H 31/800	OH 31/800H	750	800	Tr 800x7	505	1000		HM 31/800	MS 31/750-800	535.00	10.30	G1/8	TE 1/8BSP01	HMV 160E	BH 160 / BH 160-4.8	231/800K	
H 31/800 E	OH 31/800HE	750	800	Tr 800x7	505	1000		HME 31/800	MS 31/800-750	535.00	10.30	G1/8	TE 1/8BSP01	HMV 160E	BH 160 / BH 160-4.8	C31/800K	
H 32/800	OH 32/800H	750	800	Tr 800x7	618	1000		HM 31/800	MS 31/750-800	611.00	10.30	G1/8	TE 1/8BSP01	HMV 160E	BH 160 / BH 160-4.8	232/800K	
H 241/800	OH 241/800H	750	800	Tr 800x7	627	1000		HM 31/800	MS 31/750-800	610.00	10.30	G1/8	TE 1/8BSP01	HMV 160E	BH 160-4.8	241/800K30	
H 39/850	OH 39/850H	800	850	Tr 850x7	308	980		HM 30/850	MS 30/850-900	288.00	10.30	G1/8	TE 1/8BSP01	HMV 170E	BH 160 / BH 160-4.8	239/850K	
H 39/850 E	OH 39/850HE	800	850	Tr 850x7	308	980		HME 30/850	MS 30/900-850	288.00	10.30	G1/8	TE 1/8BSP01	HMV 170E	BH 160 / BH 160-4.8	239/850K	C39/850K
H 30/850	OH 30/850H	800	850	Tr 850x7	380	980		HM 30/850	MS 30/850-900	341.00	10.30	G1/8	TE 1/8BSP01	HMV 170E	BH 160 / BH 160-4.8	230/850K	
H 30/850 E	OH 30/850HE	800	850	Tr 850x7	380	980		HME 30/850	MS 30/900-850	341.00	10.30	G1/8	TE 1/8BSP01	HMV 170E	BH 160 / BH 160-4.8	230/850K	C30/850K
H 240/850	OH 240/850H	800	850	Tr 850x7	495	980		HM 30/850	MS 30/850-900	455.00	10.30	G1/8	TE 1/8BSP01	HMV 170E	BH 160-4.8	240/850K30	
H 31/850 TL	OH 31/850HTL	800	850	Tr 850x7	508	980		HM 30/850	MS 30/850-900	455.00	10.30	G1/8	TE 1/8BSP01	HMV 170E	BH 160 / BH 160-4.8	231/850K	
H 31/850	OH 31/850H	800	850	Tr 850x7	536	1060		HM 31/850	MS 31/850	616.00	10.30	G1/8	TE 1/8BSP01	HMV 170E	BH 160 / BH 160-4.8	231/850K	
H 31/850 E	OH 31/850HE	800	850	Tr 850x7	536	1060		HME 31/850	MS 31/850	616.00	10.30	G1/8	TE 1/8BSP01	HMV 170E	BH 160 / BH 160-4.8	C31/850K	
H 32/850	OH 32/850H	800	850	Tr 850x7	651	1060		HM 31/850	MS 31/850	696.00	10.30	G1/8	TE 1/8BSP01	HMV 170E	BH 160 / BH 160-4.8	232/850K	
H 241/850	OH 241/850H	800	850	Tr 850x7	658	1060		HM 31/850	MS 31/850	696.00	10.30	G1/8	TE 1/8BSP01	HMV 170E	BH 160-4.8	241/850K30	
H 39/900	OH 39/900H	850	900	Tr 900x7	326	1030		HM 30/900	MS 30/850-900	335.00	10.29	G1/8	TE 1/8BSP01	HMV 180E	BH 160 / BH 160-4.8	239/900K	
H 39/900 E	OH 39/900HE	850	900	Tr 900x7	326	1030		HME 30/900	MS 30/900-850	335.00	10.29	G1/8	TE 1/8BSP01	HMV 180E	BH 160 / BH 160-4.8	239/900K	C39/900K
H 30/900	OH 30/900H	850	900	Tr 900x7	400	1030		HM 30/900	MS 30/850-900	350.80	10.29	G1/8	TE 1/8BSP01	HMV 180E	BH 160 / BH 160-4.8	230/900K	
H 30/900 E	OH 30/900HE	850	900	Tr 900x7	400	1030		HME 30/900	MS 30/900-850	350.80	10.29	G1/8	TE 1/8BSP01	HMV 180E	BH 160 / BH 160-4.8	230/900K	C30/900K
H 240/900	OH 240/900H	850	900	Tr 900x7	520	1030		HM 30/900	MS 30/850-900	510.00	10.29	G1/8	TE 1/8BSP01	HMV 180E	BH 160-4.8	240/900K30	
H 31/900 TL	OH 31/900HTL	850	900	Tr 900x7	532	1030		HM 30/900	MS 30/850-900	513.00	10.29	G1/8	TE 1/8BSP01	HMV 180E	BH 160 / BH 160-4.8	231/900K	
H 31/900	OH 31/900H	850	900	Tr 900x7	557	1120		HM 31/900	MS 31/900	677.00	10.29	G1/8	TE 1/8BSP01	HMV 180E	BH 160 / BH 160-4.8	231/900K	
H 32/900	OH 32/900H	850	900	Tr 900x7	660	1120		HM 31/900	MS 31/900	775.00	10.29	G1/8	TE 1/8BSP01	HMV 180E	BH 160 / BH 160-4.8	232/900K	
H 241/900	OH 241/900H	850	900	Tr 900x7	685	1120		HM 31/900	MS 31/900	760.00	10.29	G1/8	TE 1/8BSP01	HMV 180E	BH 160-4.8	241/900K30	

* Example of thread part number: TR 300 x 4, TR: Trapezoidal metric thread, 300: Thread diameter, 4: Thread pitch.

* Suffix TL: Sleeves series 3100 assembled with HM 3000 Lock nuts and MS 3000 Locking clips.



ADAPTER SLEEVES H, OH...H - For Shafts in mm



ADAPTER SLEEVES H WITH HM/MS

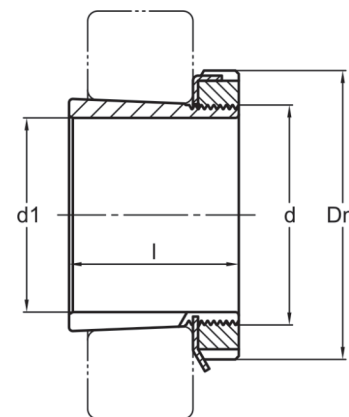
REPRESENTATION OF THE OIL GROOVES FOR HYDRAULIC SLEEVES OH...H

Product	Hydraulic Part Number	d1 (mm)	d (mm)	Thread (mm)	l (mm)	Dm (mm)	P	Assembly Nut	Lockwasher / Locking Devices	Weight (Kg)	HYDRAULIC		ASSEMBLY AND WITHDRAWAL TOOL				
											A	G1	Extension Tube	Hook Spanner	Hydraulic Nut	Hydraulic Pump	Bearings
H 39/950	OH 39/950H	900	950	Tr 950x8	344	1080		HM 30/950	MS 30/950	363.00	10.03	G1/8	TE 1/8BSP01	HMV 190E	BH 160 / BH 160-4.8	239/950K	
H 39/950 E	OH 39/950HE	900	950	Tr 950x8	344	1080		HME 30/950	MS 30/950	363.00	10.03	G1/8	TE 1/8BSP01	HMV 190E	BH 160 / BH 160-4.8	239/950K	C39/950K
H 30/950	OH 30/950H	900	950	Tr 950x8	420	1080		HM 30/950	MS 30/950	424.00	10.03	G1/8	TE 1/8BSP01	HMV 190E	BH 160 / BH 160-4.8	230/950K	
H 30/950 E	OH 30/950HE	900	950	Tr 950x8	420	1080		HME 30/950	MS 30/950	424.00	10.03	G1/8	TE 1/8BSP01	HMV 190E	BH 160 / BH 160-4.8	230/950K	C30/950K
H 240/950	OH 240/950H	900	950	Tr 950x8	557	1080		HM 30/950	MS 30/950	560.00	10.03	G1/8	TE 1/8BSP01	HMV 190E	BH 160-4.8	240/950K30	
H 31/950 TL	OH 31/950HTL	900	950	Tr 950x8	558	1080		HM 30/950	MS 30/950	65.00	10.03	G1/8	TE 1/8BSP01	HMV 190E	BH 160 / BH 160-4.8	231/950K	
H 31/950	OH 31/950H	900	950	Tr 950x8	583	1170		HM 31/950	MS 31/950	738.00	10.03	G1/8	TE 1/8BSP01	HMV 190E	BH 160 / BH 160-4.8	231/950K	
H 32/950	OH 32/950H	900	950	Tr 950x8	675	1170		HM 31/950	MS 31/950	835.00	10.03	G1/8	TE 1/8BSP01	HMV 190E	BH 160 / BH 160-4.8	232/950K	
H 241/950	OH 241/950H	900	950	Tr 950x8	715	1170		HM 31/950	MS 31/950	850.00	10.03	G1/8	TE 1/8BSP01	HMV 190E	BH 160-4.8	241/950K30	
H 39/1000	OH 39/1000H	950	1000	Tr 1000x8	358	1140		HM 30/1000	MS 30/1000	373.00	10.03	G1/8	TE 1/8BSP01	HMV 200E	BH 160 / BH 160-4.8	239/1000K	
H 30/1000	OH 30/1000H	950	1000	Tr 1000x8	430	1140		HM 30/1000	MS 30/1000	426.00	10.03	G1/8	TE 1/8BSP01	HMV 200E	BH 160 / BH 160-4.8	230/1000K	
H 30/1000 E	OH 30/1000HE	950	1000	Tr 1000x8	430	1140		HME 30/1000	MS 30/1000	426.00	10.03	G1/8	TE 1/8BSP01	HMV 200E	BH 160 / BH 160-4.8	230/1000K	C30/1000K
H 240/1000	OH 240/1000H	950	1000	Tr 1000x8	562	1140		HM 30/1000	MS 30/1000	539.00	10.03	G1/8	TE 1/8BSP01	HMV 200E	BH 160-4.8	240/1000K30	
H 31/1000 TL	OH 31/1000HTL	950	1000	Tr 1000x8	584	1140		HM 30/1000	MS 30/1000	622.00	10.03	G1/8	TE 1/8BSP01	HMV 200E	BH 160 / BH 160-4.8	231/1000K	
H 31/1000	OH 31/1000H	950	1000	Tr 1000x8	609	1240		HM 31/1000	MS 31/1000	842.00	10.03	G1/8	TE 1/8BSP01	HMV 200E	BH 160 / BH 160-4.8	231/1000K	
H 31/1000 E	OH 31/1000HE	950	1000	Tr 1000x8	609	1240		HME 31/1000	MS 31/1000	842.00	10.03	G1/8	TE 1/8BSP01	HMV 200E	BH 160 / BH 160-4.8	231/1000K	C31/1000K
H 32/1000	OH 32/1000H	950	1000	Tr 1000x8	707	1240		HM 31/1000	MS 31/1000	952.00	10.00	G1/8	TE 1/8BSP01	HMV 200E	BH 160 / BH 160-4.8	232/1000K	
H 241/1000	OH 241/1000H	950	1000	Tr 1000x8	755	1240		HM 31/1000	MS 31/1000	910.00	10.03	G1/8	TE 1/8BSP01	HMV 200E	BH 160-4.8	241/1000K30	
H 39/1060	OH 39/1060H	1000	1060	Tr 1060x8	372	1200		HM 30/1060	MS 30/1000	490.00	12.53	G1/4	TE 1/4BSP 01	HMV 212E	BH 160 / BH 160-4.8	239/1060K	
H 39/1060 E	OH 39/1060HE	1000	1060	Tr 1060x8	372	1200		HME 30/1060	MS 30/1000	490.00	12.53	G1/4	TE 1/4BSP 01	HMV 212E	BH 160 / BH 160-4.8	239/1060K	C39/1060K
H 30/1060	OH 30/1060H	1000	1060	Tr 1060x8	447	1200		HM 30/1060	MS 30/1000	571.00	12.53	G1/4	TE 1/4BSP 01	HMV 212E	BH 160 / BH 160-4.8	230/1060K	
H 240/1060	OH 240/1060H	1000	1060	Tr 1060x8	588	1200		HM 30/1060	MS 30/1000	710.00	12.53	G1/4	TE 1/4BSP 01	HMV 212E	BH 160-4.8	240/1060K30	
H 31/1060 TL	OH 31/1060HTL	1000	1060	Tr 1060x8	597	1200		HM 30/1060	MS 30/1000	744.00	12.53	G1/4	TE 1/4BSP 01	HMV 212E	BH 160 / BH 160-4.8	231/1060K	
H 31/1060	OH 31/1060H	1000	1060	Tr 1060x8	622	1300		HM 31/1060	MS 31/1000	984.00	12.53	G1/4	TE 1/4BSP 01	HMV 212E	BH 160 / BH 160-4.8	231/1060K	
H 241/1060	OH 241/1060H	1000	1060	Tr 1060x8	775	1300		HM 31/1060	MS 31/1000	1104.00	12.53	G1/4	TE 1/4BSP 01	HMV 212E	BH 160-4.8	241/1060K30	

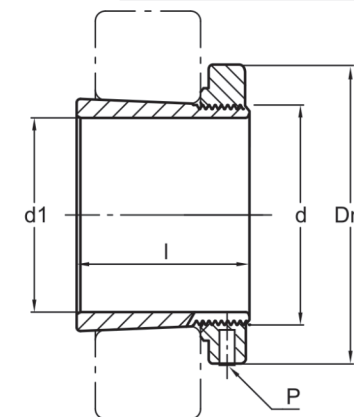


ADAPTER SLEEVES

HE, HA, HS - For Shafts in Inch



ADAPTER SLEEVES HE, HA, HS



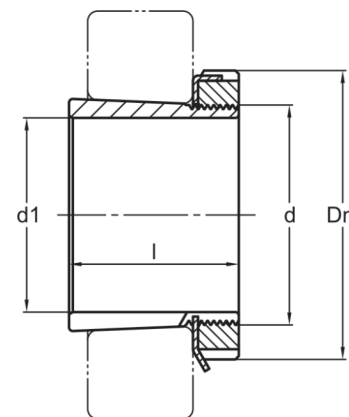
ADAPTER SLEEVES H...E WITH KMFE LOCK NUT

Product	Hydraulic Part Number	d1 (Inch)	mm	d (mm)	Thread (mm)	l (mm)	Dm (mm)	P	Assembly Nut	Lockwasher / Locking Devices	Weight (Kg)	HYDRAULIC		ASSEMBLY AND WITHDRAWAL TOOL				Bearings		
												A	G1	Extension Tube	Hook Spanner	Hydraulic Nut	Hydraulic Pump			
HE/HS 204		(5/8")	15.87	20	M 20x1	24	32		KM 4	MB 4	0.41								1204K	
HE/HS 304		(5/8")	15.87	20	M 20x1	28	32		KM 4	MB 4	0.05								1304K	2204K
HE/HS 304 E		(5/8")	15.87	20	M 20x1	28	32	M5	KMFE 4		0.06									
HE/HS 2304		(5/8")	15.87	20	M 20x1	31	32		KM 4	MB 4	0.06								2304K	
HA 204		(11/16")	17.46	20	M 20x1	24	32		KM 4	MB 4	0.04								1204K	
HA 304		(11/16")	17.46	20	M 20x1	28	32		KM 4	MB 4	0.05								1304K	2204K
HA 304 E		(11/16")	17.46	20	M 20x1	28	32	M5	KMFE 4		0.05									
HA 2304		(11/16")	17.46	20	M 20x1	31	32		KM 4	MB 4	0.05								2304K	
HE 205		(3/4")	19.05	25	M 25x1,5	26	38		KM 5	MB 5	0.07								1205K	20205K
HE 305		(3/4")	19.05	25	M 25x1,5	29	38		KM 5	MB 5	0.07								1305K	20305K 2205K 22205K
HE 305 E		(3/4")	19.05	25	M 25x1,5	29	38	M5	KMFE 5		0.09									C2205K 2205-2RSK
HE 2305		(3/4")	19.05	25	M 25x1,5	35	38		KM 5	MB 5	0.09								2305K	UK205 UK305 2305-2RSK YSA 205-2FK
HS 206		(7/8")	22.22	30	M 30x1,5	27	45		KM 6	MB 6	0.11								1206K	20206K
HS 306		(7/8")	22.22	30	M 30x1,5	31	45		KM 6	MB 6	0.12								1306K	20306K 2206K 21306K 22206K
HS 306 E		(7/8")	22.22	30	M 30x1,5	31	45	M5	KMFE 6		0.14									C2206K 2206-2RSK
HS 2306		(7/8")	22.22	30	M 30x1,5	38	45		KM 6	MB 6	0.15								2306K	UK206 UK306 2306-2RSK YSA 206-2FK
HA 206		(15/16")	23.81	30	M 30x1,5	27	45		KM 6	MB 6	0.10								1206K	20206K
HA 306		(15/16")	23.81	30	M 30x1,5	31	45		KM 6	MB 6	0.11								1306K	20306K 2206K 21306K 22206K
HA 306 E		(15/16")	23.81	30	M 30x1,5	31	45	M5	KMFE 6		0.13									C2206K 2206-2RSK
HA 2306		(15/16")	23.81	30	M 30x1,5	38	45		KM 6	MB 6	0.13								2306K	UK206 UK306 2306-2RSK YSA 206-2FK
HE 206		(1")	25.4	30	M 30x1,5	27	45		KM 6	MB 6	0.08								1206K	20206K
HE 306		(1")	25.4	30	M 30x1,5	31	45		KM 6	MB 6	0.09								1306K	20306K 2206K 21306K 22206K
HE 306 E		(1")	25.4	30	M 30x1,5	31	45	M5	KMFE 6		0.11									C2206K 2206-2RSK
HE 2306		(1")	25.4	30	M 30x1,5	38	45		KM 6	MB 6	0.10								2306K	UK206 UK306 2306-2RSK YSA 206-2FK
HE/HS 207		(1.1/8")	28.57	35	M 35x1,5	29	52		KM 7	MB 7	0.13								1207K	20207K
HE/HS 307		(1.1/8")	28.57	35	M 35x1,5	35	52		KM 7	MB 7	0.15								1307K	20307K 2207K 21307K 22207K
HE/HS 307 E		(1.1/8")	28.57	35	M 35x1,5	35	52	M5	KMFE 7		0.17									C2207K 2207-2RSK
HE/HS 2307		(1.1/8")	28.57	35	M 35x1,5	43	52		KM 7	MB 7	0.18								2307K	UK207 UK307 2207-2RSK YSA 207-2FK
HA 207		(1.3/16")	30.16	35	M 35x1,5	29	52		KM 7	MB 7	0.13								1207K	20207K
HA 307		(1.3/16")	30.16	35	M 35x1,5	35	52		KM 7	MB 7	0.13								1307K	20307K 2207K 21307K 22207K
HA 307 E		(1.3/16")	30.16	35	M 35x1,5	35	52	M5	KMFE 7		0.15									C2207K 2207-2RSK
HA 2307		(1.3/16")	30.16	35	M 35x1,5	43	52		KM 7	MB 7	0.15								2307K	UK207 UK307 2207-2RSK YSA 207-2FK

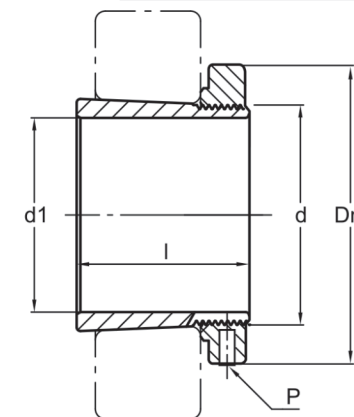


ADAPTER SLEEVES

HE, HA, HS - For Shafts in Inch



ADAPTER SLEEVES HE, HA, HS



ADAPTER SLEEVES H...E WITH KMFE LOCK NUT

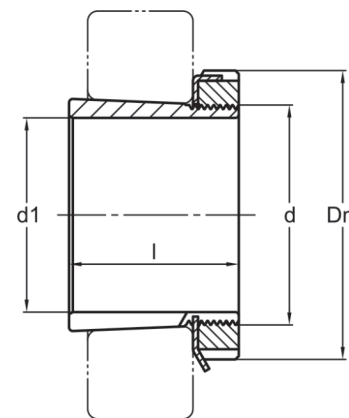
Product	Hydraulic Part Number	d1 (Inch)	mm	d (mm)	Thread (mm)	l (mm)	Dm (mm)	P	Assembly Nut	Lockwasher / Locking Devices	Weight (Kg)	HYDRAULIC		ASSEMBLY AND WITHDRAWAL TOOL								
												A	G1	Extension Tube	Hook Spanner	Hydraulic Nut	Hydraulic Pump	Bearings				
HS 213		(2.3/8")	60.32	65	M 65x1,5	40	85		KM 13X1.5	MB 13	0.35				HN 13	HMV 13x1.5E	BH 100-0,7 / BH 160 / BH 160-4.8	1213K	20213K			
HS 313		(2.3/8")	60.32	65	M 65x1,5	50	85		KM 13X1.5	MB 13	0.40				HN 13	HMV 13x1.5E	BH 100-0,7 / BH 160 / BH 160-4.8	1313K	20313K	21313K	E2.22213K	22213K
HS 313 E		(2.3/8")	60.32	65	M 65x1,5	50	85	M6	KMFE 13X1.5		0.44				HN 13	HMV 13x1.5E	BH 100-0,7 / BH 160 / BH 160-4.8	C2213K			2213-2RSK	
HS 2313		(2.3/8")	60.32	65	M 65x1,5	65	85		KM 13X1.5	MB 13	0.49				HN 13	HMV 13x1.5E	BH 100-0,7 / BH 160 / BH 160-4.8	22313K	2313K	UK213	UK313	YSA 213-2FK
HS 2313 E		(2.3/8")	60.32	65	M 65x1,5	65	85	M6	KMFE 13X1.5		0.52				HN 13	HMV 13x1.5E	BH 100-0,7 / BH 160 / BH 160-4.8					BS2-2213-2CSK
HE 214		(2.1/4")	57.15	70	M 70x2	41	92		KM 14	MB 14	0.61				HN 14	HMV 14E	BH 100-0,7 / BH 160 / BH 160-4.8	1214K	20214K			
HE 314		(2.1/4")	57.15	70	M 70x2	52	92		KM 14	MB 14	0.74				HN 14	HMV 14E	BH 100-0,7 / BH 160 / BH 160-4.8	1314K	20314K	21314K		22214K
HE 314 E		(2.1/4")	57.15	70	M 70x2	52	92	M6	KMFE 14		0.77				HN 14	HMV 14E	BH 100-0,7 / BH 160 / BH 160-4.8	C2214K				BS2-2214-2CSK
HE 2314		(2.1/4")	57.15	70	M 70x2	68	92		KM 14	MB 14	0.93				HN 14	HMV 14E	BH 100-0,7 / BH 160 / BH 160-4.8	22314K	2314K	C2314K		
HA 215		(2.7/16")	61.91	75	M 75x2	43	98		KM 15	MB 15	0.71				HN 15	HMV 15E	BH 100-0,7 / BH 160 / BH 160-4.8	1215K	20215K			
HA 315		(2.7/16")	61.91	75	M 75x2	55	98		KM 15	MB 15	0.86				HN 15	HMV 15E	BH 100-0,7 / BH 160 / BH 160-4.8	1315K	20315K	21315K	2215K	22215K
HA 315 E		(2.7/16")	61.91	75	M 75x2	55	98	M6	KMFE 15		0.90				HN 15	HMV 15E	BH 100-0,7 / BH 160 / BH 160-4.8	C2215K				BS2-2215-2CSK
HA 2315		(2.7/16")	61.91	75	M 75x2	73	98		KM 15	MB 15	1.10				HN 15	HMV 15E	BH 100-0,7 / BH 160 / BH 160-4.8	22315K	2315K	C2315K	UK215	UK315
HE 215		(2.1/2")	63.5	75	M 75x2	43	98		KM 15	MB 15	0.67				HN 15	HMV 15E	BH 100-0,7 / BH 160 / BH 160-4.8	1215K	20215K			
HE 315		(2.1/2")	63.5	75	M 75x2	55	98		KM 15	MB 15	0.80				HN 15	HMV 15E	BH 100-0,7 / BH 160 / BH 160-4.8	1315K	20315K	21315K	2215K	22215K
HE 315 E		(2.1/2")	63.5	75	M 75x2	55	98	M6	KMFE 15		0.85				HN 15	HMV 15E	BH 100-0,7 / BH 160 / BH 160-4.8	C2215K				BS2-2215-2CSK
HE 2315		(2.1/2")	63.5	75	M 75x2	73	98		KM 15	MB 15	1.02				HN 15	HMV 15E	BH 100-0,7 / BH 160 / BH 160-4.8	22315K	2315K	C2315K	UK215	UK315
HS 215		(2.5/8")	66.67	75	M 75x2	43	98		KM 15	MB 15	0.58				HN 15	HMV 15E	BH 100-0,7 / BH 160 / BH 160-4.8	1215K	20215K			
HS 315		(2.5/8")	66.67	75	M 75x2	55	98		KM 15	MB 15	0.68				HN 15	HMV 15E	BH 100-0,7 / BH 160 / BH 160-4.8	1315K	20315K	21315K	2215K	22215K
HS 315 E		(2.5/8")	66.67	75	M 75x2	55	98	M6	KMFE 15		0.75				HN 15	HMV 15E	BH 100-0,7 / BH 160 / BH 160-4.8	C2215K				BS2-2215-2CSK
HS 2315		(2.5/8")	66.67	75	M 75x2	73	98		KM 15	MB 15	0.86				HN 15	HMV 15E	BH 100-0,7 / BH 160 / BH 160-4.8	22315K	2315K	C2315K	UK215	UK315
HA 216		(2.11/16")	68.26	80	M 80x2	46	105		KM 16	MB 16	0.83				HN 16	HMV 16E	BH 100-0,7 / BH 160 / BH 160-4.8	1216K	20216K			
HA 316		(2.11/16")	68.26	80	M 80x2	59	105		KM 16	MB 16	1.00				HN 16	HMV 16E	BH 100-0,7 / BH 160 / BH 160-4.8	1316K	20316K	21316K	2216K	22216K
HA 316 E		(2.11/16")	68.26	80	M 80x2	59	105	M8	KMFE 16		1.06				HN 16	HMV 16E	BH 100-0,7 / BH 160 / BH 160-4.8	C2216K				BS2-2216-2CSK
HA 2316		(2.11/16")	68.26	80	M 80x2	78	105		KM 16	MB 16	1.24				HN 16	HMV 16E	BH 100-0,7 / BH 160 / BH 160-4.8	22316K	2316K	C2316K	UK216	UK316
HE 216		(2.3/4")	69.85	80	M 80x2	46	105		KM 16	MB 16	0.79				HN 16	HMV 16E	BH 100-0,7 / BH 160 / BH 160-4.8	1216K	20216K			
HE 316		(2.3/4")	69.85	80	M 80x2	59	105		KM 16	MB 16	0.93				HN 16	HMV 16E	BH 100-0,7 / BH 160 / BH 160-4.8	1316K	20316K	21316K	2216K	22216K
HE 316 E		(2.3/4")	69.85	80	M 80x2	59	105	M8	KMFE 16		0.98				HN 16	HMV 16E	BH 100-0,7 / BH 160 / BH 160-4.8	C2216K				BS2-2216-2CSK
HE 2316		(2.3/4")	69.85	80	M 80x2	78	105		KM 16	MB 16	1.16				HN 16	HMV 16E	BH 100-0,7 / BH 160 / BH 160-4.8	22316K	2316K	C2316K	UK216	UK316
HS 217		(2.7/8")	73.02	85	M 85x2	50	110		KM 17	MB 17	1.02				HN 17	HMV 17E	BH 100-0,7 / BH 160 / BH 160-4.8	1217K	20217K			
HS 317		(2.7/8")	73.02	85	M 85x2	63	110		KM 17	MB 17	1.15				HN 17	HMV 17E	BH 100-0,7 / BH 160 / BH 160-4.8	1317K	20317K	21317K	2217K	22217K
HS 317 E		(2.7/8")	73.02	85	M 85x2	63	110	M8	KMFE 17		1.22				HN 17	HMV 17E	BH 100-0,7 / BH 160 / BH 160-4.8	C2217K				BS2-2217-2CSK
HS 2317		(2.7/8")	73.02	85	M 85x2	82	110		KM 17	MB 17	1.45				HN 17	HMV 17E	BH 100-0,7 / BH 160 / BH 160-4.8	22317K	2317K	C2317K	UK217	UK317

* Example of thread part number: M 50 x 1.5. M: Metric Thread - mm, 50: Thread diameter, 1.5: Thread pitch.

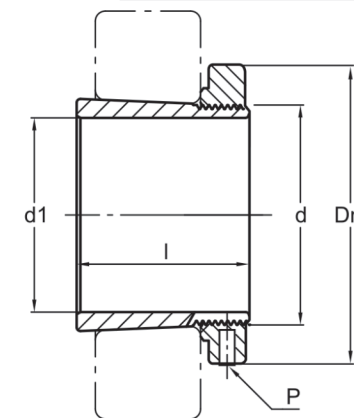


ADAPTER SLEEVES

HE, HA, HS - For Shafts in Inch



ADAPTER SLEEVES HE, HA, HS

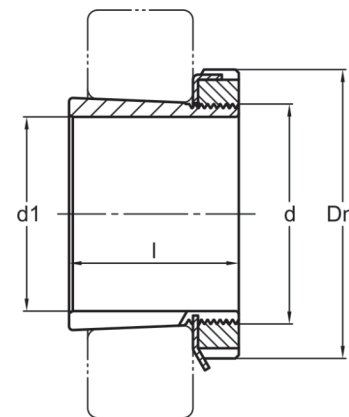


ADAPTER SLEEVES H...E WITH KMFE LOCK NUT

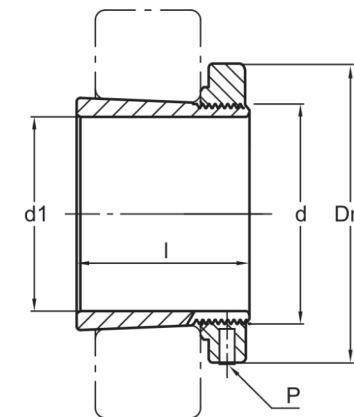
Product	Hydraulic Part Number	d1 (Inch)	mm	d (mm)	Thread (mm)	l (mm)	Dm (mm)	P	Assembly Nut	Lockwasher / Locking Devices	Weight (Kg)	HYDRAULIC		ASSEMBLY AND WITHDRAWAL TOOL									
												A	G1	Extension Tube	Hook Spanner	Hydraulic Nut	Hydraulic Pump	Bearings					
HA 222		(3.15/16")	100.01	110	M 110x2	63	145		KM 22	MB 22	1.52				HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8	1222K	20222K				
HA 322		(3.15/16")	100.01	110	M 110x2	77	145		KM 22	MB 22	1.97				HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8	1322K	20322K	21322K	2222K	23022K	22222K
HA 322 E		(3.15/16")	100.01	110	M 110x2	77	145	M8	KMFE 22		1.97				HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8	C2222K	C3022K				
HA 3122		(3.15/16")	100.01	110	M 110x2	81	145		KM 22	MB 22	2.25				HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8	23122K					
HA 3122 E		(3.15/16")	100.01	110	M 110x2	81	145	M8	KMFE 22		2.27				HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8					23122-2CS5K	
HA 2322		(3.15/16")	100.01	110	M 110x2	105	145		KM 22	MB 22	2.40				HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8	22322K	23222K				UK322
HA 2322 E		(3.15/16")	100.01	110	M 110x2	105	145	M8	KMFE 22		2.42				HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8			23222-2CS5K	BS2-2222-2CS5K		
HE 222		(4")	101.6	110	M 110x2	63	145		KM 22	MB 22	1.63				HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8	1222K	20222K				
HE 322		(4")	101.6	110	M 110x2	77	145		KM 22	MB 22	1.83				HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8	1322K	20322K	21322K	2222K	23022K	22222K
HE 322 E		(4")	101.6	110	M 110x2	77	145	M8	KMFE 22		1.85				HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8	C2222K	C3022K				
HE 3122		(4")	101.6	110	M 110x2	81	145		KM 22	MB 22	1.91				HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8	23122K					
HE 3122 E		(4")	101.6	110	M 110x2	81	145	M8	KMFE 22		1.93				HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8					23122-2CS5K	
HE 2322		(4")	101.6	110	M 110x2	105	145		KM 22	MB 22	2.32				HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8	22322K	23222K				UK322
HE 2322 E		(4")	101.6	110	M 110x2	105	145	M8	KMFE 22		2.34				HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8			23222-2CS5K	BS2-2222-2CS5K		
HA 3024		(4.3/16")	106.36	120	M 120x2	72	145		KML 24	MBL 24	2.00				HN 22	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	1224K	20224K			23024K	
HA 3024 E		(4.3/16")	106.36	120	M 120x2	72	155	M10	KMFE 24		2.32				HN 24	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8					C3024K	
HA 3124		(4.3/16")	106.36	120	M 120x2	88	155		KM 24	MB 24	2.69				HN 24	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	20324K	22224K	23124K			
HA 3124 L		(4.3/16")	106.36	120	M 120x2	88	145		KML 24	MBL 24	2.69				HN 22	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	C2224K					
HA 2324		(4.3/16")	106.36	120	M 120x2	112	155		KM 24	MB 24	3.40				HN 24	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	22324K	23224K			22324-2CS5K	UK324
HA 2324 E		(4.3/16")	106.36	120	M 120x2	112	155	M10	KMFE 24		3.44				HN 24	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8					BS2-2224-2CS5K	
HA 2324 L		(4.3/16")	106.36	120	M 120x2	112	145		KML 24	MBL 24	3.40				HN 22	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	C3224K				23224-2CS5K	
HE 3024		(4.1/4")	107.95	120	M 120x2	72	145		KML 24	MBL 24	2.00				HN 22	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	1224K	20224K				
HE 3024 E		(4.1/4")	107.95	120	M 120x2	72	155	M10	KMFE 24		2.70				HN 24	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8					C3024K	
HE 3124		(4.1/4")	107.95	120	M 120x2	88	155		KM 24	MB 24	2.60				HN 24	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	20324K	22224K	23124K			
HE 3124 L		(4.1/4")	107.95	120	M 120x2	88	145		KML 24	MBL 24	2.35				HN 22	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	C2224K					
HE 2324		(4.1/4")	107.95	120	M 120x2	112	155		KM 24	MB 24	3.15				HN 24	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	22324K	23224K			22324-2CS5K	UK324
HE 2324 E		(4.1/4")	107.95	120	M 120x2	112	155	M10	KMFE 24		3.19				HN 24	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8					BS2-2224-2CS5K	
HE 2324 L		(4.1/4")	107.95	120	M 120x2	112	145		KML 24	MBL 24	2.87				HN 22	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	C3224K				23224-2CS5K	
HS 3024		(4.3/8")	111.12	120	M 120x2	72	145		KML 24	MBL 24	1.93				HN 22	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	1224K	20224K				
HS 3024 E		(4.3/8")	111.12	120	M 120x2	72	155	M10	KMFE 24		1.98				HN 24	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8					C3024K	
HS 3124		(4.3/8")	111.12	120	M 120x2	88	155		KM 24	MB 24	2.20				HN 24	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	20324K	22224K	23124K			
HS 3124 L		(4.3/8")	111.12	120	M 120x2	88	145		KML 24	MBL 24	1.97				HN 22	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	C2224K					
HS 2324		(4.3/8")	111.12	120	M 120x2	112	155		KM 24	MB 24	2.80				HN 24	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	22324K	23224K			22324-2CS5K	UK324
HS 2324 E		(4.3/8")	111.12	120	M 120x2	112	155	M10	KMFE 24		3.24				HN 24	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8					BS2-2224-2CS5K	
HS 2324 L		(4.3/8")	111.12	120	M 120x2	112	145		KML 24	MBL 24	2.96				HN 22	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	C3224K				23224-2CS5K	



ADAPTER SLEEVES HE, HA, HS - For Shafts in Inch



ADAPTER SLEEVES HE, HA, HS



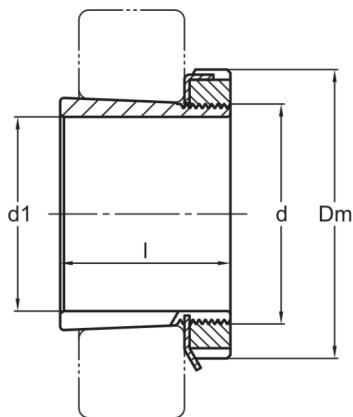
ADAPTER SLEEVES H...E WITH KMFE LOCK NUT

Product	Hydraulic Part Number	d1 (Inch)	mm	d (mm)	Thread (mm)	l (mm)	Dm (mm)	P	Assembly Nut	Lockwasher / Locking Devices	Weight (Kg)	HYDRAULIC		Extension Tube	ASSEMBLY AND WITHDRAWAL TOOL			Bearings					
												A	G1		Hook Spanner	Hydraulic Nut	Hydraulic Pump						
HA 3026		(4.7/16")	112.71	130	M 130x2	80	155		KML 26	MBL 26	3.71				HN 24	HMV 26E	BH 100-0.7 / BH 160 / BH 160-4.8	1226K	20226K	23026K	C3026K		
HA 3026 E		(4.7/16")	112.71	130	M 130x2	80	165	M10	KMFE 26		3.22				HN 26	HMV 26E	BH 100-0.7 / BH 160 / BH 160-4.8				23026-2CS5K		
HA 3126		(4.7/16")	112.71	130	M 130x2	92	165		KM 26	MB 26	3.50				HN 26	HMV 26E	BH 100-0.7 / BH 160 / BH 160-4.8	20326K	22226K	23126K			
HA 3126 L		(4.7/16")	112.71	130	M 130x2	92	155		KML 26	MBL 26	3.50				HN 24	HMV 26E	BH 100-0.7 / BH 160 / BH 160-4.8	C2226K					
HA 2326		(4.7/16")	112.71	130	M 130x2	121	165		KM 26	MB 26	4.41				HN 26	HMV 26E	BH 100-0.7 / BH 160 / BH 160-4.8	22326K	23226K	C2326K	22326-2CS5K	UK326	
HA 2326 L		(4.7/16")	112.71	130	M 130x2	121	155		KML 26	MBL 26	3.81				HN 24	HMV 26E	BH 100-0.7 / BH 160 / BH 160-4.8				23226-2CS5K	BS2-2226-2CS5K	
HE 3026		(4.1/2")	114.3	130	M 130x2	80	155		KML 26	MBL 26	2.60				HN 24	HMV 26E	BH 100-0.7 / BH 160 / BH 160-4.8	20226K	23026K	C3026K			
HE 3026 E		(4.1/2")	114.3	130	M 130x2	80	165	M10	KMFE 26		3.04				HN 26	HMV 26E	BH 100-0.7 / BH 160 / BH 160-4.8				23026-2CS5K		
HE 3126		(4.1/2")	114.3	130	M 130x2	92	165		KM 26	MB 26	3.36				HN 26	HMV 26E	BH 100-0.7 / BH 160 / BH 160-4.8	20326K	22226K	23126K			
HE 3126 L		(4.1/2")	114.3	130	M 130x2	92	155		KML 26	MBL 26	3.00				HN 24	HMV 26E	BH 100-0.7 / BH 160 / BH 160-4.8	C2226K					
HE 2326		(4.1/2")	114.3	130	M 130x2	121	165		KM 26	MB 26	4.28				HN 26	HMV 26E	BH 100-0.7 / BH 160 / BH 160-4.8	22326K	23226K	C2326K	22326-2CS5K	UK326	
HE 2326 L		(4.1/2")	114.3	130	M 130x2	121	155		KML 26	MBL 26	4.14				HN 24	HMV 26E	BH 100-0.7 / BH 160 / BH 160-4.8				23226-2CS5K	BS2-2226-2CS5K	
HS 3028		(4.7/8")	123.82	140	M 140x2	82	165		KML 28	MBL 28	3.16				HN 26	HMV 28E	BH 100-0.7 / BH 160 / BH 160-4.8	20228K	23028K				
HS 3028 E		(4.7/8")	123.82	140	M 140x2	82	180	M10	KMFE 28		3.73				HN 28	HMV 28E	BH 100-0.7 / BH 160 / BH 160-4.8				C3028K	23028-2CS5K	
HS 3128		(4.7/8")	123.82	140	M 140x2	97	180		KM 28	MB 28	4.00				HN 28	HMV 28E	BH 100-0.7 / BH 160 / BH 160-4.8	20328K	22228K	23128K			
HS 3128 L		(4.7/8")	123.82	140	M 140x2	97	165		KML 28	MBL 28	3.31				HN 26	HMV 28E	BH 100-0.7 / BH 160 / BH 160-4.8	C2228K			22228-2CS5K		
HS 2328		(4.7/8")	123.82	140	M 140x2	131	180		KM 28	MB 28	5.20				HN 28	HMV 28E	BH 100-0.7 / BH 160 / BH 160-4.8	22328K	23228K		22328-2CS5K	23228-2CS5K	UK328
HS 2328 L		(4.7/8")	123.82	140	M 140x2	131	165		KML 28	MBL 28	4.51				HN 26	HMV 28E	BH 100-0.7 / BH 160 / BH 160-4.8						
HA 3028		(4.15/16")	125.41	140	M 140x2	82	165		KML 28	MBL 28	2.81				HN 26	HMV 28E	BH 100-0.7 / BH 160 / BH 160-4.8	20228K	23028K				
HA 3028 E		(4.15/16")	125.41	140	M 140x2	82	180	M10	KMFE 28		3.38				HN 28	HMV 28E	BH 100-0.7 / BH 160 / BH 160-4.8				C3028K	23028-2CS5K	
HA 3128		(4.15/16")	125.41	140	M 140x2	97	180		KM 28	MB 28	3.87				HN 28	HMV 28E	BH 100-0.7 / BH 160 / BH 160-4.8	20328K	22228K	23128K			
HA 3128 L		(4.15/16")	125.41	140	M 140x2	97	165		KML 28	MBL 28	3.87				HN 26	HMV 28E	BH 100-0.7 / BH 160 / BH 160-4.8	C2228K			22228-2CS5K		
HA 2328		(4.15/16")	125.41	140	M 140x2	131	180		KM 28	MB 28	4.99				HN 28	HMV 28E	BH 100-0.7 / BH 160 / BH 160-4.8	22328K	23228K		22328-2CS5K	23228-2CS5K	UK328
HA 2328 L		(4.15/16")	125.41	140	M 140x2	131	165		KML 28	MBL 28	4.30				HN 26	HMV 28E	BH 100-0.7 / BH 160 / BH 160-4.8						
HE 3028		(5")	127	140	M 140x2	82	165		KML 28	MBL 28	2.60				HN 26	HMV 28E	BH 100-0.7 / BH 160 / BH 160-4.8	20228K	23028K				
HE 3028 E		(5")	127	140	M 140x2	82	180	M10	KMFE 28		3.165				HN 28	HMV 28E	BH 100-0.7 / BH 160 / BH 160-4.8				C3028K	23028-2CS5K	
HE 3128		(5")	127	140	M 140x2	97	180		KM 28	MB 28	3.65				HN 28	HMV 28E	BH 100-0.7 / BH 160 / BH 160-4.8	20328K	22228K	23128K			
HE 3128 L		(5")	127	140	M 140x2	97	165		KML 28	MBL 28	3.91				HN 26	HMV 28E	BH 100-0.7 / BH 160 / BH 160-4.8	C2228K			22228-2CS5K		
HE 2328		(5")	127	140	M 140x2	131	180		KM 28	MB 28	4.68				HN 28	HMV 28E	BH 100-0.7 / BH 160 / BH 160-4.8	22328K	23228K		22328-2CS5K	23228-2CS5K	UK328
HE 2328 L		(5")	127	140	M 140x2	131	165		KML 28	MBL 28	5.06				HN 26	HMV 28E	BH 100-0.7 / BH 160 / BH 160-4.8						
HA 3030		(5.3/16")	131.76	150	M 150x2	87	180		KML 30	MBL 30	3.94				HN 28	HMV 30E	BH 100-0.7 / BH 160 / BH 160-4.8	20230K	23030K				
HA 3030 E		(5.3/16")	131.76	150	M 150x2	87	195	M10	KMFE 30		4.21				HN 30	HMV 30E	BH 100-0.7 / BH 160 / BH 160-4.8				C3030K	23030-2CS5K	
HA 3130		(5.3/16")	131.76	150	M 150x2	111	195		KM 30	MB 30	5.43				HN 30	HMV 30E	BH 100-0.7 / BH 160 / BH 160-4.8	20330K	22230K	23130K			
HA 3130 E		(5.3/16")	131.76	150	M 150x2	111	195	M10	KMFE 30		5.46				HN 30	HMV 30E	BH 100-0.7 / BH 160 / BH 160-4.8				22230-2CS5K		
HA 3130 L		(5.3/16")	131.76	150	M 150x2	111	180		KML 30	MBL 30	5.43				HN 28	HMV 30E	BH 100-0.7 / BH 160 / BH 160-4.8	C2230K	C3130K		23130-2CS5K		

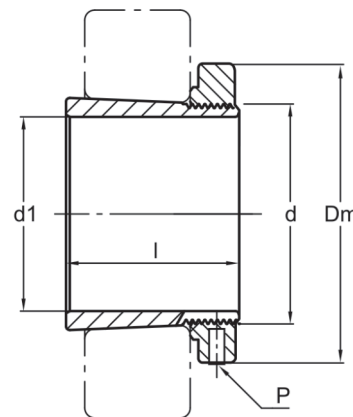
* Example of thread part number: M 50 x 1.5. M: Metric Thread - mm, 50: Thread diameter, 1.5: Thread pitch.



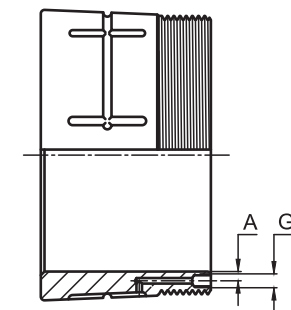
ADAPTER SLEEVES
HE, HA, HS
OHE ...H OHA ...H OHS ...H
For Shafts in Inch



ADAPTER SLEEVES HE, HA, HS



ADAPTER SLEEVES H ...E WITH KMFE LOCK NUT



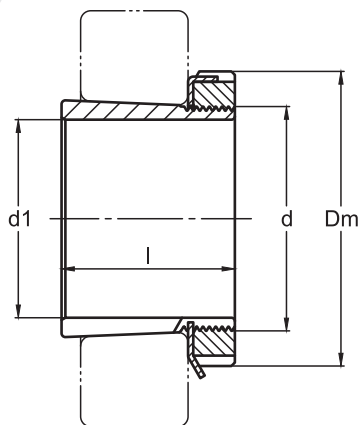
REPRESENTATION OF THE OIL GROOVES FOR HYDRAULIC SLEEVES OHE ...H, OHA ...H, OHS ...H

Product	Hydraulic Part Number	d1 (Inch)	mm	d (mm)	Thread (mm)	l (mm)	Dm (mm)	P	Assembly Nut	Lockwasher / Locking Devices	Weight (Kg)	HYDRAULIC		ASSEMBLY AND WITHDRAWAL TOOL				Bearings			
												A	G1	Extension Tube	Hook Spanner	Hydraulic Nut	Hydraulic Pump				
HS 2334	OHS 2334H	(5.7/8")	149.22	170	M 170x3	154	220		KM 34	MB 34	9.40	4.15	M6	TE M6 01 or 02	HN 34	HMV 34E	BH 100-0,7 / BH 160 / BH 160-4.8	22334K	23234K		
HA 3034	OHA 3034H	(5.15/16")	150.81	170	M 170x3	101	200		KML 34	MBL 34	5.29	3.76	M6	TE M6 01 or 02	HN 31	HMV 34E	BH 100-0,7 / BH 160 / BH 160-4.8	20234K	23034K		
HA 3034 E	OHA 3034HE	(5.15/16")	150.81	170	M 170x3	101	220	M10	KMFE 34	MB 34	6.26	3.76	M6	TE M6 01 or 02	HN 34	HMV 34E	BH 100-0,7 / BH 160 / BH 160-4.8			C3034K 23034-2CS5K	
HA 3134	OHA 3134H	(5.15/16")	150.81	170	M 170x3	122	220		KM 34	MB 34	7.50	3.76	M6	TE M6 01 or 02	HN 34	HMV 34E	BH 100-0,7 / BH 160 / BH 160-4.8		22234K	23134K	22234-2CS5K
HA 3134 E	OHA 3134HE	(5.15/16")	150.81	170	M 170x3	122	220	M10	KMFE 34	MBL 34	7.41	3.76	M6	TE M6 01 or 02	HN 34	HMV 34E	BH 100-0,7 / BH 160 / BH 160-4.8				23134-2CS5K
HA 3134 L	OHA 3134HL	(5.15/16")	150.81	170	M 170x3	122	200		KML 34	MBL 34	7.50	3.76	M6	TE M6 01 or 02	HN 31	HMV 34E	BH 100-0,7 / BH 160 / BH 160-4.8		C2234K		
HA 2334	OHA 2334H	(5.15/16")	150.81	170	M 170x3	154	220		KM 34	MB 34	9.03	3.76	M6	TE M6 01 or 02	HN 34	HMV 34E	BH 100-0,7 / BH 160 / BH 160-4.8	22334K	23234K		
HE 3034	OHE 3034H	(6")	152.4	170	M 170x3	101	200		KML 34	MBL 34	5.20	3.36	M6	TE M6 01 or 02	HN 31	HMV 34E	BH 100-0,7 / BH 160 / BH 160-4.8	20234K	23034K		
HE 3034 E	OHE 3034HE	(6")	152.4	170	M 170x3	101	220	M10	KMFE 34	MB 34	6.17	3.36	M6	TE M6 01 or 02	HN 34	HMV 34E	BH 100-0,7 / BH 160 / BH 160-4.8			C3034K 23034-2CS5K	
HE 3134	OHE 3134H	(6")	152.4	170	M 170x3	122	220		KM 34	MB 34	7.50	3.36	M6	TE M6 01 or 02	HN 34	HMV 34E	BH 100-0,7 / BH 160 / BH 160-4.8		22234K	23134K	22234-2CS5K
HE 3134 E	OHE 3134HE	(6")	152.4	170	M 170x3	122	220	M10	KMFE 34	MB 34	7.41	3.36	M6	TE M6 01 or 02	HN 34	HMV 34E	BH 100-0,7 / BH 160 / BH 160-4.8			C3134K	23134-2CS5K
HE 3134 L	OHE 3134HL	(6")	152.4	170	M 170x3	122	200		KML 34	MBL 34	6.40	3.36	M6	TE M6 01 or 02	HN 31	HMV 34E	BH 100-0,7 / BH 160 / BH 160-4.8		C2234K		
HE 2334	OHE 2334H	(6")	152.4	170	M 170x3	154	220		KM 34	MB 34	8.60	3.36	M6	TE M6 01 or 02	HN 34	HMV 34E	BH 100-0,7 / BH 160 / BH 160-4.8	22334K	23234K		
HS 3036	OHS 3036H	(6.3/8")	161.92	180	M 180x3	109	210		KML 36	MBL 36	6.83	3.48	M6	TE M6 01 or 02	HN 32-HN 33	HMV 36E	BH 100-0,7 / BH 160 / BH 160-4.8	23036K		C3036K	
HS 3036 E	OHS 3036HE	(6.3/8")	161.92	180	M 180x3	109	230	M10	KMFE 36	MB 36	7.96	3.48	M6	TE M6 01 or 02	HN 36	HMV 36E	BH 100-0,7 / BH 160 / BH 160-4.8				23036-2CS5K
HS 3136	OHS 3136H	(6.3/8")	161.92	180	M 180x3	131	230		KM 36	MB 36	8.20	3.48	M6	TE M6 01 or 02	HN 36	HMV 36E	BH 100-0,7 / BH 160 / BH 160-4.8	22236K	23136K		
HS 2336	OHS 2336H	(6.3/8")	161.92	180	M 180x3	161	230		KM 36	MB 36	11.30	3.48	M6	TE M6 01 or 02	HN 36	HMV 36E	BH 100-0,7 / BH 160 / BH 160-4.8	22336K	23236K	C3236K	
HA 3036	OHA 3036H	(6.7/16")	163.51	180	M 180x3	109	210		KML 36	MBL 36	5.57	3.08	M6	TE M6 01 or 02	HN 32-HN 33	HMV 36E	BH 100-0,7 / BH 160 / BH 160-4.8	23036K		C3036K	
HA 3036 E	OHA 3036HE	(6.7/16")	163.51	180	M 180x3	109	230	M10	KMFE 36	MB 36	6.70	3.08	M6	TE M6 01 or 02	HN 36	HMV 36E	BH 100-0,7 / BH 160 / BH 160-4.8				23036-2CS5K
HA 3136	OHA 3136H	(6.7/16")	163.51	180	M 180x3	131	230		KM 36	MB 36	7.80	3.08	M6	TE M6 01 or 02	HN 36	HMV 36E	BH 100-0,7 / BH 160 / BH 160-4.8	22236K	23136K		22236-2CS5K
HA 3136 L	OHA 3136HL	(6.7/16")	163.51	180	M 180x3	131	210		KML 36	MBL 36	9.50	3.08	M6	TE M6 01 or 02	HN 32-HN 33	HMV 36E	BH 100-0,7 / BH 160 / BH 160-4.8		C3136K		23136-2CS5K
HA 2336	OHA 2336H	(6.7/16")	163.51	180	M 180x3	161	230		KM 36	MB 36	9.60	3.08	M6	TE M6 01 or 02	HN 36	HMV 36E	BH 100-0,7 / BH 160 / BH 160-4.8	22336K	23236K	C3236K	
HE 3036	OHE 3036H	(6.1/2")	165.1	180	M 180x3	109	210		KML 36	MBL 36	5.40	2.68	M6	TE M6 01 or 02	HN 32-HN 33	HMV 36E	BH 100-0,7 / BH 160 / BH 160-4.8	23036K		C3036K	
HE 3036 E	OHE 3036HE	(6.1/2")	165.1	180	M 180x3	109	230	M10	KMFE 36	MB 36	6.53	10.18	M6	TE M6 01 or 02	HN 36	HMV 36E	BH 100-0,7 / BH 160 / BH 160-4.8				23036-2CS5K
HE 3136	OHE 3136H	(6.1/2")	165.1	180	M 180x3	131	230		KM 36	MB 36	7.40	2.68	M6	TE M6 01 or 02	HN 36	HMV 36E	BH 100-0,7 / BH 160 / BH 160-4.8	22236K	23136K		22236-2CS5K
HE 3136 L	OHE 3136HL	(6.1/2")	165.1	180	M 180x3	131	210		KML 36	MBL 36	8.49	2.68	M6	TE M6 01 or 02	HN 32-HN 33	HMV 36E	BH 100-0,7 / BH 160 / BH 160-4.8		C3136K		23136-2CS5K
HE 2336	OHE 2336H	(6.1/2")	165.1	180	M 180x3	161	230		KM 36	MB 36	9.00	2.68	M6	TE M6 01 or 02	HN 36	HMV 36E	BH 100-0,7 / BH 160 / BH 160-4.8	22336K	23236K	C3236K	
HS 3038	OHS 3038H	(6.5/8")	168.27	190	M 190x3	112	220		KML 38	MBL 38	7.45	4.38	M6	TE M6 01 or 02	HN 34	HMV 38E	BH 100-0,7 / BH 160 / BH 160-4.8	23038K		C3038K C3138K	
HS 3138	OHS 3138H	(6.5/8")	168.27	190	M 190x3	141	240		KM 38	MB 38	10.20	4.38	M6	TE M6 01 or 02	HN 38	HMV 38E	BH 100-0,7 / BH 160 / BH 160-4.8	22238K	23138K	C2238K	23138-2CS5K
HS 3138 L	OHS 3138HL	(6.5/8")	168.27	190	M 190x3	141	220		KML 38	MBL 38	8.94	4.38	M6	TE M6 01 or 02	HN 34	HMV 38E	BH 100-0,7 / BH 160 / BH 160-4.8				22238-2CS5K
HS 2338	OHS 2338H	(6.5/8")	168.27	190	M 190x3	169	240		KM 38	MB 38	12.60	4.38	M6	TE M6 01 or 02	HN 38	HMV 38E	BH 100-0,7 / BH 160 / BH 160-4.8	22338K	23238K		
HE 3038	OHE 3038H	(6.3/4")	171.45	190	M 190x3	112	220		KML 38	MBL 38	6.60	3.59	M6	TE M6 01 or 02	HN 34	HMV 38E	BH 100-0,7 / BH 160 / BH 160-4.8	23038K		C3038K C3138K	
HE 3138	OHE 3138H	(6.3/4")	171.45	190	M 190x3	141	240		KM 38	MB 38	9.40	3.59	M6	TE M6 01 or 02	HN 38	HMV 38E	BH 100-0,7 / BH 160 / BH 160-4.8	22238K	23138K	C2238K	23138-2CS5K

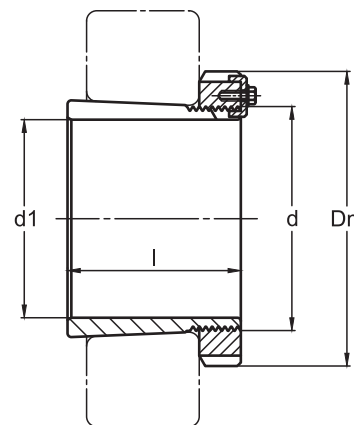
* Example of thread part number: M 50 x 1.5. M: Metric Thread - mm, 50: Thread diameter, 1.5: Thread pitch.
* Suffix L: Sleeves assembled with KML nut and MBL washers.



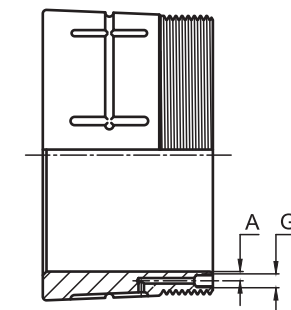
ADAPTER SLEEVES
HE, HA, HS
OHE ...H OHA ...H OHS ...H
For Shafts in Inch



ADAPTER SLEEVES HE, HA, HS



ADAPTER SLEEVES HE, HA, HS WITH HM/MS



REPRESENTATION OF THE OIL GROOVES FOR HYDRAULIC SLEEVES OHE ...H, OHA ...H, OHS ...H

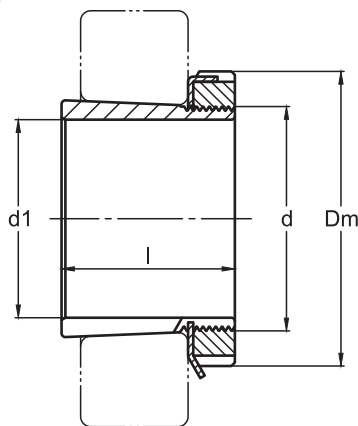
Product	Hydraulic Part Number	d1 (Inch)	mm	d (mm)	Thread (mm)	l (mm)	Dm (mm)	P	Assembly Nut	Lockwasher / Locking Devices	Weight (Kg)	HYDRAULIC		ASSEMBLY AND WITHDRAWAL TOOL				Bearings
												A	G1	Extension Tube	Hook Spanner	Hydraulic Nut	Hydraulic Pump	
HE 3138 L	OHE 3138HL	(6.3/4")	171.45	190	M 190x3	141	220		KML 38	MBL 38	9.62	3.59	M6	TE M6 01 or 02	HN 34	HMV 38E	BH 100-0.7 / BH 160 / BH 160-4.8	
HE 2338	OHE 2338H	(6.3/4")	171.45	190	M 190x3	169	240		KM 38	MB 38	11.00	3.59	M6	TE M6 01 or 02	HN 38	HMV 38E	BH 100-0.7 / BH 160 / BH 160-4.8	22338K 23238K
HA 3038	OHA 3038H	(6.15/16")	176.21	190	M 190x3	112	220		KML 38	MBL 38	5.40	2.40	M6	TE M6 01 or 02	HN 34	HMV 38E	BH 100-0.7 / BH 160 / BH 160-4.8	23038K C3038K
HA 3138	OHA 3138H	(6.15/16")	176.21	190	M 190x3	141	240		KM 38	MB 38	8.00	2.40	M6	TE M6 01 or 02	HN 38	HMV 38E	BH 100-0.7 / BH 160 / BH 160-4.8	22238K 23138K C2238K C3138K 23138-2CS5K 22238-2CS5K
HA 3138 L	OHA 3138HL	(6.15/16")	176.21	190	M 190x3	141	220		KML 38	MBL 38	8.20	2.40	M6	TE M6 01 or 02	HN 34	HMV 38E	BH 100-0.7 / BH 160 / BH 160-4.8	
HA 2338	OHA 2338H	(6.15/16")	176.21	190	M 190x3	169	240		KM 38	MB 38	12.60	2.40	M6	TE M6 01 or 02	HN 38	HMV 38E	BH 100-0.7 / BH 160 / BH 160-4.8	22338K 23238K
HE 3040	OHE 3040H	(7")	177.8	200	M 200x3	120	240		KML 40	MBL 40	8.80	4.50	M6	TE M6 01 or 02	HN 38	HMV 40E	BH 100-0.7 / BH 160 / BH 160-4.8	23040K C3040K 23040-2CS5K
HE 3140	OHE 3140H	(7")	177.8	200	M 200x3	150	250		KM 40	MB 40	11.60	4.50	M6	TE M6 01 or 02	HN 40	HMV 40E	BH 100-0.7 / BH 160 / BH 160-4.8	22240K 23140K C3140K 23140-2CS5K 22240-2CS5K
HE 3140 L	OHE 3140HL	(7")	177.8	200	M 200x3	150	240		KML 40	MBL 40	10.80	4.50	M6	TE M6 01 or 02	HN 38	HMV 40E	BH 100-0.7 / BH 160 / BH 160-4.8	
HE 2340	OHE 2340H	(7")	177.8	200	M 200x3	176	250		KM 40	MB 40	13.60	4.50	M6	TE M6 01 or 02	HN 40	HMV 40E	BH 100-0.7 / BH 160 / BH 160-4.8	22340K 23240K
HE 2340 L	OHE 2340HL	(7")	177.8	200	M 200x3	176	240		KML 40	MBL 40	12.96	4.50	M6	TE M6 01 or 02	HN 38	HMV 40E	BH 100-0.7 / BH 160 / BH 160-4.8	23240-2CS5K
HS 3040	OHS 3040H	(7.1/8")	180.97	200	M 200x3	120	240		KML 40	MBL 40	9.19	3.71	M6	TE M6 01 or 02	HN 38	HMV 40E	BH 100-0.7 / BH 160 / BH 160-4.8	23040K C3040K 23040-2CS5K
HS 2340	OHS 2340H	(7.1/8")	180.97	200	M 200x3	176	250		KM 40	MB 40	13.90	3.71	M6	TE M6 01 or 02	HN 40	HMV 40E	BH 100-0.7 / BH 160 / BH 160-4.8	22340K 23240K
HS 2340 L	OHS 2340HL	(7.1/8")	180.97	200	M 200x3	176	240		KML 40	MBL 40	13.26	3.71	M6	TE M6 01 or 02	HN 38	HMV 40E	BH 100-0.7 / BH 160 / BH 160-4.8	23240-2CS5K
HA 3040	OHA 3040H	(7.3/16")	182.56	200	M 200x3	120	240		KML 40	MBL 40	7.80	3.31	M6	TE M6 01 or 02	HN 38	HMV 40E	BH 100-0.7 / BH 160 / BH 160-4.8	23040K C3040K 23040-2CS5K
HA 3140	OHA 3140H	(7.3/16")	182.56	200	M 200x3	150	250		KM 40	MB 40	10.20	3.31	M6	TE M6 01 or 02	HN 40	HMV 40E	BH 100-0.7 / BH 160 / BH 160-4.8	22240K 23140K C3140K 23140-2CS5K 22240-2CS5K
HA 3140 L	OHA 3140HL	(7.3/16")	182.56	200	M 200x3	150	240		KML 40	MBL 40	9.39	3.31	M6	TE M6 01 or 02	HN 38	HMV 40E	BH 100-0.7 / BH 160 / BH 160-4.8	
HA 2340	OHA 2340H	(7.3/16")	182.56	200	M 200x3	176	250		KM 40	MB 40	11.70	3.31	M6	TE M6 01 or 02	HN 40	HMV 40E	BH 100-0.7 / BH 160 / BH 160-4.8	22340K 23240K
HA 2340 L	OHA 2340HL	(7.3/16")	182.56	200	M 200x3	176	240		KML 40	MBL 40	11.06	3.31	M6	TE M6 01 or 02	HN 38	HMV 40E	BH 100-0.7 / BH 160 / BH 160-4.8	23240-2CS5K
HA 3044	OHA 3044H	(7.15/16")	201.61	220	Tr 220x4	126	260		HM 3044	MS 3044	9.00	3.34	M6	TE M6 01 or 02	HN 44	HMV 44E	BH 100-0.7 / BH 160 / BH 160-4.8	23044K C3044K 23044-2CS5K
HA 3144 TL	OHA 3144HTL	(7.15/16")	201.61	220	Tr 220x4	156	260		HM 3044	MS 3044	13.20	3.34	M6	TE M6 01 or 02	HN 44	HMV 44E	BH 100-0.7 / BH 160 / BH 160-4.8	C3144K 23144-2CS5K
HA 3144	OHA 3144H	(7.15/16")	201.61	220	Tr 220x4	161	280		HM 3144	MS 3144-MS 3148	12.80	3.34	M6	TE M6 01 or 02	HN 44	HMV 44E	BH 100-0.7 / BH 160 / BH 160-4.8	22244K 23144K C2244K 22244-2CS5K
HA 3144 X	OHA 3144XH	(7.15/16")	201.61	220	Tr 220x4	161	280		HM 44T	MB 44	14.70	3.34	M6	TE M6 01 or 02	HN 44	HMV 44E	BH 100-0.7 / BH 160 / BH 160-4.8	22244K 23144K C2244K 22244-2CS5K
HA 2344	OHA 2344H	(7.15/16")	201.61	220	Tr 220x4	186	280		HM 3144	MS 3144-MS 3148	14.60	3.34	M6	TE M6 01 or 02	HN 44	HMV 44E	BH 100-0.7 / BH 160 / BH 160-4.8	22344K 23244K 22344-2CS5K
HA 2344 X	OHA 2344XH	(7.15/16")	201.61	220	Tr 220x4	186	280		HM 44T	MB 44	16.70	3.34	M6	TE M6 01 or 02	HN 44	HMV 44E	BH 100-0.7 / BH 160 / BH 160-4.8	22344K 23244K 22344-2CS5K
HE 3044	OHE 3044H	(8")	203.2	220	Tr 220x4	126	260		HM 3044	MS 3044	10.30	2.94	M6	TE M6 01 or 02	HN 44	HMV 44E	BH 100-0.7 / BH 160 / BH 160-4.8	23044K C3044K 23044-2CS5K
HE 3144 TL	OHE 3144HTL	(8")	203.2	220	Tr 220x4	156	260		HM 3044	MS 3044	13.20	2.94	M6	TE M6 01 or 02	HN 44	HMV 44E	BH 100-0.7 / BH 160 / BH 160-4.8	C3144K 23144-2CS5K
HE 3144	OHE 3144H	(8")	203.2	220	Tr 220x4	161	280		HM 3144	MS 3144-MS 3148	12.20	2.94	M6	TE M6 01 or 02	HN 44	HMV 44E	BH 100-0.7 / BH 160 / BH 160-4.8	22244K 23144K C2244K 22244-2CS5K
HE 3144 X	OHE 3144XH	(8")	203.2	220	Tr 220x4	161	280		HM 44T	MB 44	13.00	2.94	M6	TE M6 01 or 02	HN 44	HMV 44E	BH 100-0.7 / BH 160 / BH 160-4.8	22244K 23144K C2244K 22244-2CS5K
HE 2344	OHE 2344H	(8")	203.2	220	Tr 220x4	186	280		HM 3144	MS 3144-MS 3148	14.00	2.94	M6	TE M6 01 or 02	HN 44	HMV 44E	BH 100-0.7 / BH 160 / BH 160-4.8	22344K 23244K 22344-2CS5K
HE 2344 X	OHE 2344XH	(8")	203.2	220	Tr 220x4	186	280		HM 44T	MB 44	16.70	2.94	M6	TE M6 01 or 02	HN 44	HMV 44E	BH 100-0.7 / BH 160 / BH 160-4.8	22344K 23244K 22344-2CS5K
HA 3148 TL	OHA 3148HTL	(8.7/16")	214.31	240	Tr 240x4	169	290		HM 3048	MS 3048-MS3052	15.80	5.16	M6	TE M6 01 or 02		HMV 48E	BH 100-0.7 / BH 160 / BH 160-4.8	C3148K 23148-2CS5K
HA 3148	OHA 3148H	(8.7/16")	214.31	240	Tr 240x4	172	300		HM 3148	MS 3144-MS 3148	17.30	5.16	M6	TE M6 01 or 02		HMV 48E	BH 100-0.7 / BH 160 / BH 160-4.8	22248K 23148K

* Example of thread part number: TR 300 x 4, TR: Trapezoidal metric thread, 300: Thread diameter, 4: Thread pitch. * Suffix L: Sleeves assembled with KML nut and MBL washers.

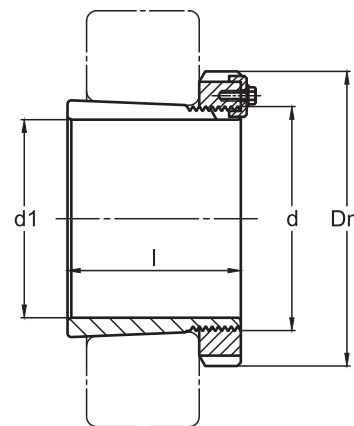
* Suffix TL: Sleeves series 3100 assembled with HM 3000 nut and MS 3000 locking. * Suffix X: Sleeves mounted with HM nut and MB washer.



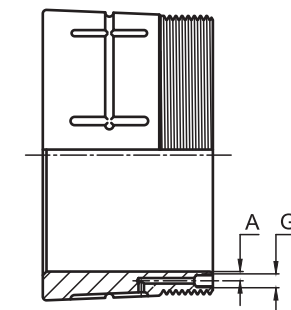
ADAPTER SLEEVES
HE, HA, HS
OHE ...H OHA ...H OHS ...H
For Shafts in Inch



ADAPTER SLEEVES HE, HA, HS



ADAPTER SLEEVES HE, HA, HS WITH HM/MS



REPRESENTATION OF THE OIL GROOVES FOR HYDRAULIC SLEEVES OHE ...H, OHA ...H, OHS ...H

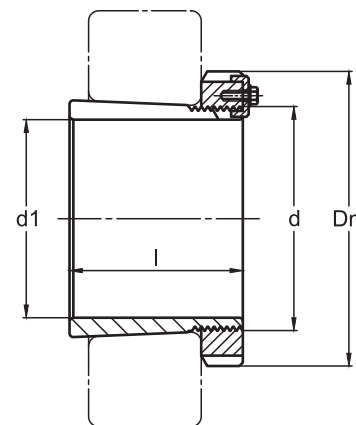
Product	Hydraulic Part Number	d1 (Inch)	mm	d (mm)	Thread (mm)	l (mm)	Dm (mm)	P	Assembly Nut	Lockwasher / Locking Devices	Weight (Kg)	HYDRAULIC		ASSEMBLY AND WITHDRAWAL TOOL				Bearings	
												A	G1	Extension Tube	Hook Spanner	Hydraulic Nut	Hydraulic Pump		
HA 3148 X	OHA 3148XH	(8.7/16")	214.31	240	Tr 240x4	172	300		HM 48T	MB 48	17.30	5.16	M6	TE M6 01 or 02		HMV 48E	BH 100-0.7 / BH 160 / BH 160-4.8	22248K	23148K
HA 2348	OHA 2348H	(8.7/16")	214.31	240	Tr 240x4	199	300		HM 3148	MS 3144-MS 3148	19.70	5.16	M6	TE M6 01 or 02		HMV 48E	BH 100-0.7 / BH 160 / BH 160-4.8	22348K	23248K
HA 2348 X	OHA 2348XH	(8.7/16")	214.31	240	Tr 240x4	199	300		HM 48T	MB 48	19.70	5.16	M6	TE M6 01 or 02		HMV 48E	BH 100-0.7 / BH 160 / BH 160-4.8	22348K	23248K
HA 3048	OHA 3048H	(8.7/16")	214.31	240	Tr 240x4	133	290		HM 3048	MS 3048-MS3052	13.70	5.16	M6	TE M6 01 or 02		HMV 48E	BH 100-0.7 / BH 160 / BH 160-4.8	23048K	
HE 3048	OHE 3048H	(8.1/2")	215.9	240	Tr 240x4	133	290		HM 3048	MS 3048-MS3052	13.20	4.77	M6	TE M6 01 or 02		HMV 48E	BH 100-0.7 / BH 160 / BH 160-4.8	23048K	
HE 3148 TL	OHE 3148HTL	(8.1/2")	215.9	240	Tr 240x4	169	290		HM 3048	MS 3048-MS3052	15.80	4.77	M6	TE M6 01 or 02		HMV 48E	BH 100-0.7 / BH 160 / BH 160-4.8	C3148K	23148-2CS5K
HE 3148	OHE 3148H	(8.1/2")	215.9	240	Tr 240x4	172	300		HM 3148	MS 3144-MS 3148	17.60	4.77	M6	TE M6 01 or 02		HMV 48E	BH 100-0.7 / BH 160 / BH 160-4.8	22248K	23148K
HE 3148 X	OHE 3148XH	(8.1/2")	215.9	240	Tr 240x4	172	300		HM 48T	MB 48	17.30	4.77	M6	TE M6 01 or 02		HMV 48E	BH 100-0.7 / BH 160 / BH 160-4.8	22248K	23148K
HE 2348	OHE 2348H	(8.1/2")	215.9	240	Tr 240x4	199	300		HM 3148	MS 3144-MS 3148	19.70	4.77	M6	TE M6 01 or 02		HMV 48E	BH 100-0.7 / BH 160 / BH 160-4.8	22348K	23248K
HE 2348 X	OHE 2348XH	(8.1/2")	215.9	240	Tr 240x4	199	300		HM 48T	MB 48	20.80	4.77	M6	TE M6 01 or 02		HMV 48E	BH 100-0.7 / BH 160 / BH 160-4.8	22348K	23248K
HA 3052	OHA 3052H	(9.7/16")	239.71	260	Tr 260x4	145	310		HM 3052	MS 3048-MS3052	14.00	3.81	M6	TE M6 01 or 02		HMV 52E	BH 100-0.7 / BH 160 / BH 160-4.8	23052K	C3052K
HA 3152 TL	OHA 3152HTL	(9.7/16")	239.71	260	Tr 260x4	185	310		HM 3052	MS 3048-MS3052	18.00	3.81	M6	TE M6 01 or 02		HMV 52E	BH 100-0.7 / BH 160 / BH 160-4.8	C3152K	23152-2CS5K
HA 3152	OHA 3152H	(9.7/16")	239.71	260	Tr 260x4	190	330		HM 3152	MS 3152-MS 3156	20.20	3.81	M6	TE M6 01 or 02		HMV 52E	BH 100-0.7 / BH 160 / BH 160-4.8	22252K	23152K
HA 3152 X	OHA 3152XH	(9.7/16")	239.71	260	Tr 260x4	190	330		HM 52T	MB 52	20.80	3.81	M6	TE M6 01 or 02		HMV 52E	BH 100-0.7 / BH 160 / BH 160-4.8	22252K	23152K
HA 2352	OHA 2352H	(9.7/16")	239.71	260	Tr 260x4	211	330		HM 3152	MS 3152-MS 3156	24.20	3.81	M6	TE M6 01 or 02		HMV 52E	BH 100-0.7 / BH 160 / BH 160-4.8	22352K	23252K
HA 2352 X	OHA 2352XH	(9.7/16")	239.71	260	Tr 260x4	211	330		HM 52T	MB 52	24.20	3.81	M6	TE M6 01 or 02		HMV 52E	BH 100-0.7 / BH 160 / BH 160-4.8	22352K	23252K
HE 3052	OHE 3052H	(9.1/2")	241.3	260	Tr 260x4	145	310		HM 3052	MS 3048-MS3052	13.40	3.42	M6	TE M6 01 or 02		HMV 52E	BH 100-0.7 / BH 160 / BH 160-4.8	23052K	C3052K
HE 3152 TL	OHE 3152HTL	(9.1/2")	241.3	260	Tr 260x4	185	310		HM 3052	MS 3048-MS3052	20.00	3.42	M6	TE M6 01 or 02		HMV 52E	BH 100-0.7 / BH 160 / BH 160-4.8	C3152K	23152-2CS5K
HE 3152	OHE 3152H	(9.1/2")	241.3	260	Tr 260x4	190	330		HM 3152	MS 3152-MS 3156	22.00	3.42	M6	TE M6 01 or 02		HMV 52E	BH 100-0.7 / BH 160 / BH 160-4.8	22252K	23152K
HE 3152 X	OHE 3152XH	(9.1/2")	241.3	260	Tr 260x4	190	330		HM 52T	MB 52	22.00	3.42	M6	TE M6 01 or 02		HMV 52E	BH 100-0.7 / BH 160 / BH 160-4.8	22252K	23152K
HE 2352	OHE 2352H	(9.1/2")	241.3	260	Tr 260x4	211	330		HM 3152	MS 3152-MS 3156	24.20	3.42	M6	TE M6 01 or 02		HMV 52E	BH 100-0.7 / BH 160 / BH 160-4.8	22352K	23252K
HE 2352 X	OHE 2352XH	(9.1/2")	241.3	260	Tr 260x4	211	330		HM 52T	MB 52	24.20	3.42	M6	TE M6 01 or 02		HMV 52E	BH 100-0.7 / BH 160 / BH 160-4.8	22352K	23252K
HE 3056	OHE 3056H	(10")	254	280	Tr 280x4	152	330		HM 3056	MS 3056	18.60	5.24	M6	TE M6 01 or 02		HMV 56E	BH 100-0.7 / BH 160 / BH 160-4.8	23056K	C3056K
HE 3156 TL	OHE 3156HTL	(10")	254	280	Tr 280x4	192	330		HM 3056	MS 3056	22.60	5.24	M6	TE M6 01 or 02		HMV 56E	BH 100-0.7 / BH 160 / BH 160-4.8	C3156K	23156-2CS5K
HE 3156	OHE 3156H	(10")	254	280	Tr 280x4	195	350		HM 3156	MS 3152-MS 3156	25.80	5.24	M6	TE M6 01 or 02		HMV 56E	BH 100-0.7 / BH 160 / BH 160-4.8	22256K	23156K
HE 3156 X	OHE 3156XH	(10")	254	280	Tr 280x4	195	350		HM 56T	MB 56	24.50	5.24	M6	TE M6 01 or 02		HMV 56E	BH 100-0.7 / BH 160 / BH 160-4.8	22256K	23156K
HE 2356	OHE 2356H	(10")	254	280	Tr 280x4	224	350		HM 3156	MS 3152-MS 3156	29.40	5.24	M6	TE M6 01 or 02		HMV 56E	BH 100-0.7 / BH 160 / BH 160-4.8	22356K	23256K
HE 2356 X	OHE 2356XH	(10")	254	280	Tr 280x4	224	350		HM 56T	MB 56	27.80	5.24	M6	TE M6 01 or 02		HMV 56E	BH 100-0.7 / BH 160 / BH 160-4.8	22356K	23256K
HA 3056	OHA 3056H	(10.7/16")	265.11	280	Tr 280x4	152	330		HM 3056	MS 3056	13.80	2.46	M6	TE M6 01 or 02		HMV 56E	BH 100-0.7 / BH 160 / BH 160-4.8	23056K	C3056K
HA 3156 TL	OHA 3156HTL	(10.7/16")	265.11	280	Tr 280x4	192	330		HM 3056	MS 3056	17.20	2.46	M6	TE M6 01 or 02		HMV 56E	BH 100-0.7 / BH 160 / BH 160-4.8	C3156K	23156-2CS5K
HA 3156	OHA 3156H	(10.7/16")	265.11	280	Tr 280x4	195	350		HM 3156	MS 3152-MS 3156	19.80	2.46	M6	TE M6 01 or 02		HMV 56E	BH 100-0.7 / BH 160 / BH 160-4.8	22256K	23156K
HA 3156 X	OHA 3156XH	(10.7/16")	265.11	280	Tr 280x4	195	350		HM 56T	MB 56	24.50	2.46	M6	TE M6 01 or 02		HMV 56E	BH 100-0.7 / BH 160 / BH 160-4.8	22256K	23156K
HA 2356	OHA 2356H	(10.7/16")	265.11	280	Tr 280x4	224	350		HM 3156	MS 3152-MS 3156	27.80	2.46	M6	TE M6 01 or 02		HMV 56E	BH 100-0.7 / BH 160 / BH 160-4.8	22356K	23256K
HA 2356 X	OHA 2356XH	(10.7/16")	265.11	280	Tr 280x4	224	350		HM 56T	MB 56	26.00	2.46	M6	TE M6 01 or 02		HMV 56E	BH 100-0.7 / BH 160 / BH 160-4.8	22356K	23256K
HA 24056	OHA 24056H	(10.15/16")	265.11	280	Tr 280x4	183.4	330		HM 3056	MS 3056	24.50	2.46	M6	TE M6 01 or 02		HMV 56E	BH 100-0.7 / BH 160 / BH 160-4.8	24056K30	

* Example of thread part number: TR 300 x 4, TR: Trapezoidal metric thread, 300: Thread diameter, 4: Thread pitch.

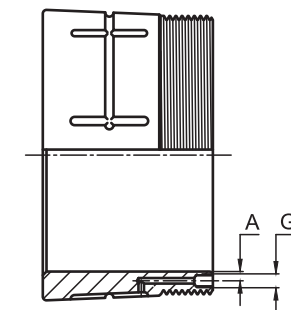
* Suffix TL: Sleeves series 3100 assembled with HM 3000 nut and MS 3000 locking.
* Suffix X: Sleeves mounted with HM nut and MB washer.



ADAPTER SLEEVES
HE, HA, HS
OHE ...H OHA ...H OHS ...H
 For Shafts in Inch



ADAPTER SLEEVES HE, HA, HS WITH HM/MS



REPRESENTATION OF THE OIL GROOVES FOR HYDRAULIC SLEEVES OHE ...H, OHA ...H, OHS ...H

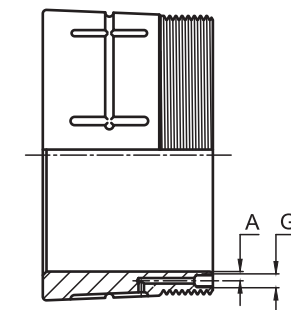
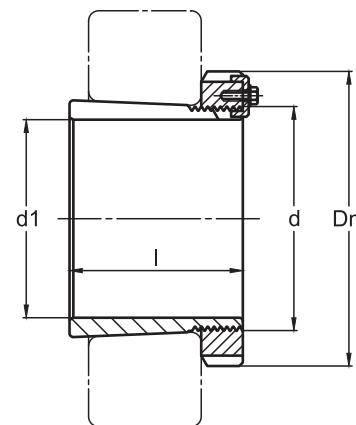
Product	Hydraulic Part Number	d1 (Inch)	mm	d (mm)	Thread (mm)	l (mm)	Dm (mm)	P	Assembly Nut	Lockwasher / Locking Devices	Weight (Kg)	HYDRAULIC		ASSEMBLY AND WITHDRAWAL TOOL				Bearings	
												A	G1	Extension Tube	Hook Spanner	Hydraulic Nut	Hydraulic Pump		
HA 3060	OHA 3060H	(10.15/16")	277.81	300	Tr 300x4	168	360		HM 3060	MS 3060	21.00	4.28	M6	TE M6 01 or 02		HMV 60E	BH 100-0,7 / BH 160 / BH 160-4.8	23060K	C3060K
HA 3160	OHA 3160H	(10.15/16")	277.81	300	Tr 300x4	208	380		HM 3160	MS 3160	28.80	4.28	M6	TE M6 01 or 02		HMV 60E	BH 100-0,7 / BH 160 / BH 160-4.8	22260K	23160K C3160K
HA 3160 TL	OHA 3160HTL	(10.15/16")	277.81	300	Tr 300x4	210	360		HM 3060	MS 3060	26.60	4.28	M6	TE M6 01 or 02		HMV 60E	BH 100-0,7 / BH 160 / BH 160-4.8		
HE 3060	OHE 3060H	(11")	279.4	300	Tr 300x4	168	360		HM 3060	MS 3060	21.00	3.88	M6	TE M6 01 or 02		HMV 60E	BH 100-0,7 / BH 160 / BH 160-4.8	23060K	C3060K
HE 3160	OHE 3160H	(11")	279.4	300	Tr 300x4	208	380		HM 3160	MS 3160	27.60	3.88	M6	TE M6 01 or 02		HMV 60E	BH 100-0,7 / BH 160 / BH 160-4.8	22260K	23160K C3160K
HE 3160 TL	OHE 3160HTL	(11")	279.4	300	Tr 300x4	210	360		HM 3060	MS 3060	27.60	3.88	M6	TE M6 01 or 02		HMV 60E	BH 100-0,7 / BH 160 / BH 160-4.8		
HE 3260	OHE 3260H	(11")	279.4	300	Tr 300x4	240	380		HM 3160	MS 3160	36.00	3.88	M6	TE M6 01 or 02		HMV 60E	BH 100-0,7 / BH 160 / BH 160-4.8	22360K	22360K
HE 3064	OHE 3064H	(11.1/2")	292.1	320	Tr 320x5	171	380		HM 3064	MS 3064-MS 3068	24.60	5.45	M6	TE M6 01 or 02		HMV 64E	BH 100-0,7 / BH 160 / BH 160-4.8	23064K	C3064K
HE 3164	OHE 3164H	(11.1/2")	292.1	320	Tr 320x5	226	400		HM 3164	MS 3164	31.80	5.45	M6	TE M6 01 or 02		HMV 64E	BH 100-0,7 / BH 160 / BH 160-4.8	22264K	23164K C3164K
HE 3164 TL	OHE 3164HTL	(11.1/2")	292.1	320	Tr 320x5	226	380		HM 3064	MS 3064-MS 3068	28.82	5.45	M6	TE M6 01 or 02		HMV 64E	BH 100-0,7 / BH 160 / BH 160-4.8		
HE 3264	OHE 3264H	(11.1/2")	292.1	320	Tr 320x5	258	400		HM 3164	MS 3164	35.00	5.45	M6	TE M6 01 or 02		HMV 64E	BH 100-0,7 / BH 160 / BH 160-4.8	23264K	22364K
HA 3164	OHA 3164H	(11.15/16")	303.21	320	Tr 320x5	226	400		HM 3164	MS 3164	31.80	2.67	M6	TE M6 01 or 02		HMV 64E	BH 100-0,7 / BH 160 / BH 160-4.8	22264K	23164K C3164K
HA 3164 TL	OHA 3164HTL	(11.15/16")	303.21	320	Tr 320x5	226	380		HM 3064	MS 3064-MS 3068	26.40	2.67	M6	TE M6 01 or 02		HMV 64E	BH 100-0,7 / BH 160 / BH 160-4.8		
HA 3064	OHA 3064H	(12")	303.21	320	Tr 320x5	171	380		HM 3064	MS 3064-MS 3068	21.52	2.67	M6	TE M6 01 or 02		HMV 64E	BH 100-0,7 / BH 160 / BH 160-4.8	23064K	C3064K
HE 3168 TL	OHE 3168HTL	(12")	304.8	340	Tr 340x5	244	400		HM 3068	MS 3064-MS 3068	34.04	7.27	M6	TE M6 01 or 02		HMV 68E	BH 100-0,7 / BH 160 / BH 160-4.8		
HE 3068	OHE 3068H	(12")	304.8	340	Tr 340x5	187	400		HM 3068	MS 3064-MS 3068	35.80	7.27	M6	TE M6 01 or 02		HMV 68E	BH 100-0,7 / BH 160 / BH 160-4.8	23068K	C3068K
HE 3168	OHE 3168H	(12")	304.8	340	Tr 340x5	254	440		HM 3168	MS 3168-MS 3172	58.60	7.27	M6	TE M6 01 or 02		HMV 68E	BH 100-0,7 / BH 160 / BH 160-4.8	23168K	C3168K
HE 3268	OHE 3268H	(12")	304.8	340	Tr 340x5	288	440		HM 3168	MS 3168-MS 3172	51.50	7.27	M6	TE M6 01 or 02		HMV 68E	BH 100-0,7 / BH 160 / BH 160-4.8	23268K	22368K
HA 3068	OHA 3068H	(12.7/16")	315.91	340	Tr 340x5	187	400		HM 3068	MS 3064-MS 3068	26.40	4.49	M6	TE M6 01 or 02		HMV 68E	BH 100-0,7 / BH 160 / BH 160-4.8	23068K	C3068K
HA 3168 TL	OHA 3168HTL	(12.7/16")	315.91	340	Tr 340x5	244	400		HM 3068	MS 3064-MS 3068	34.04	4.49	M6	TE M6 01 or 02		HMV 68E	BH 100-0,7 / BH 160 / BH 160-4.8		
HA 3168	OHA 3168H	(12.7/16")	315.91	340	Tr 340x5	254	440		HM 3168	MS 3168-MS 3172	45.40	4.49	M6	TE M6 01 or 02		HMV 68E	BH 100-0,7 / BH 160 / BH 160-4.8	23168K	C3168K
HE 3072	OHE 3072H	(13")	330.2	360	Tr 360x5	188	420		HM 3072	MS 3072	27.40	5.92	M6	TE M6 01 or 02		HMV 72E	BH 100-0,7 / BH 160 / BH 160-4.8	23072K	C3072K
HE 3172 TL	OHE 3172HTL	(13")	330.2	360	Tr 360x5	246	420		HM 3072	MS 3072	44.20	5.92	M6	TE M6 01 or 02		HMV 72E	BH 100-0,7 / BH 160 / BH 160-4.8		
HE 3172	OHE 3172H	(13")	330.2	360	Tr 360x5	259	460		HM 3172	MS 3168-MS 3172	54.20	5.92	M6	TE M6 01 or 02		HMV 72E	BH 100-0,7 / BH 160 / BH 160-4.8	23172K	C3172K 22272K
HE 3272	OHE 3272H	(13")	330.2	360	Tr 360x5	299	460		HM 3172	MS 3168-MS 3172	60.50	5.92	M6	TE M6 01 or 02		HMV 72E	BH 100-0,7 / BH 160 / BH 160-4.8	23272K	22372K
HA 3172 TL	OHA 3172HTL	(13.7/16")	341.31	360	Tr 360x5	246	420		HM 3072	MS 3072	36.60	3.14	M6	TE M6 01 or 02		HMV 72E	BH 100-0,7 / BH 160 / BH 160-4.8		
HA 3172	OHA 3172H	(13.7/16")	341.31	360	Tr 360x5	259	460		HM 3172	MS 3168-MS 3172	54.20	3.14	M6	TE M6 01 or 02		HMV 72E	BH 100-0,7 / BH 160 / BH 160-4.8	23172K	C3172K 22272K
HA 3072	OHA 3072H	(13.7/16")	341.31	360	Tr 360x5	188	420		HM 3072	MS 3072	30.50	3.14	M6	TE M6 01 or 02		HMV 72E	BH 100-0,7 / BH 160 / BH 160-4.8	23072K	C3072K
HA 3176 TL	OHA 3176HTL	(13.15/16")	354.01	380	Tr 380x5	252	450		HM 3076	MS 3076-MS 3080	56.20	4.97	M6	TE M6 01 or 02		HMV 76E	BH 100-0,7 / BH 160 / BH 160-4.8		
HA 3176	OHA 3176H	(13.15/16")	354.01	380	Tr 380x5	264	490		HM 3176	MS 3176	56.20	4.97	M6	TE M6 01 or 02		HMV 76E	BH 100-0,7 / BH 160 / BH 160-4.8	23176K	
HA 3076	OHA 3076H	(13.15/16")	354.01	380	Tr 380x5	193	450		HM 3076	MS 3076-MS 3080	37.40	4.97	M6	TE M6 01 or 02		HMV 76E	BH 100-0,7 / BH 160 / BH 160-4.8	23076K	C3076K

* Example of thread part number: TR 300 x 4, TR: Trapezoidal metric thread, 300: Thread diameter, 4: Thread pitch.

* Suffix TL: Sleeve series 3100 assembled with HM 3000 nut and MS 3000 Locking.



ADAPTER SLEEVES
HE, HA, HS
OHE ...H OHA ...H OHS ...H
 For Shafts in Inch



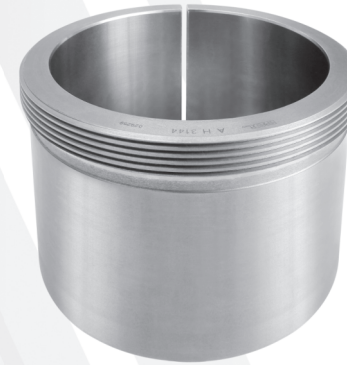
ADAPTER SLEEVES HE, HA, HS WITH HM/MS

REPRESENTATION OF THE OIL GROOVES FOR HYDRAULIC SLEEVES OHE ...H, OHA ...H, OHS ...H

Product	Hydraulic Part Number	d1 (Inch)	mm	d (mm)	Thread (mm)	l (mm)	Dm (mm)	P	Assembly Nut	Lockwasher / Locking Devices	Weight (Kg)	HYDRAULIC		ASSEMBLY AND WITHDRAWAL TOOL				Bearings
												A	G1	Extension Tube	Hook Spanner	Hydraulic Nut	Hydraulic Pump	
HE 3176 TL	OHE 3176HTL	(14")	355.6	380	Tr 380x5	252	450		HM 3076	MS 3076-MS 3080	42.60	4.57	M6	TE M6 01 or 02	HMV 76E	BH 100-0,7 / BH 160 / BH 160-4.8		
HE 3076	OHE 3076H	(14")	355.6	380	Tr 380x5	193	450		HM 3076	MS 3076-MS 3080	32.80	4.57	M6	TE M6 01 or 02	HMV 76E	BH 100-0,7 / BH 160 / BH 160-4.8	23076K	C3076K
HE 3176	OHE 3176H	(14")	355.6	380	Tr 380x5	264	490		HM 3176	MS 3176	60.40	4.57	M6	TE M6 01 or 02	HMV 76E	BH 100-0,7 / BH 160 / BH 160-4.8	23176K	
HE 3276	OHE 3276H	(14")	355.6	380	Tr 380x5	310	490		HM 3176	MS 3176	69.50	4.57	M6	TE M6 01 or 02	HMV 76E	BH 100-0,7 / BH 160 / BH 160-4.8	23276K	22376K
HE 3080	OHE 3080H	(15")	381	400	Tr 400x5	210	470		HM 3080	MS 3076-MS 3080	37.00	3.22	M6	TE M6 01 or 02	HMV 80E	BH 100-0,7 / BH 160 / BH 160-4.8	23080K	C3080K
HE 3180 TL	OHE 3180HTL	(15")	381	400	Tr 400x5	262	470		HM 3080	MS 3076-MS 3080	44.80	3.22	M6	TE M6 01 or 02	HMV 80E	BH 100-0,7 / BH 160 / BH 160-4.8		
HE 3180	OHE 3180H	(15")	381	400	Tr 400x5	272	520		HM 3180	MS 3180-MS 3184	63.20	3.22	M6	TE M6 01 or 02	HMV 80E	BH 100-0,7 / BH 160 / BH 160-4.8	23180K	C3180K
HE 3280	OHE 3280H	(15")	381	400	Tr 400x5	328	520		HM 3180	MS 3180-MS 3184	81.00	3.22	M6	TE M6 01 or 02	HMV 80E	BH 100-0,7 / BH 160 / BH 160-4.8	23280K	22380K
HE 3084	OHE 3084H	(15.3/4")	400.05	420	Tr 420x5	212	490		HM 3084	MS 3084	40.00	3.46	M6	TE M6 01 or 02	HMV 84E	BH 100-0,7 / BH 160 / BH 160-4.8	23084K	C3084K
HE 3184 TL	OHE 3184HTL	(15.3/4")	400.05	420	Tr 420x5	286	490		HM 3084	MS 3084	60.60	3.46	M6	TE M6 01 or 02	HMV 84E	BH 100-0,7 / BH 160 / BH 160-4.8		
HE 3184	OHE 3184H	(15.3/4")	400.05	420	Tr 420x5	304	540		HM 3184	MS 3180-MS 3184	77.40	3.46	M6	TE M6 01 or 02	HMV 84E	BH 100-0,7 / BH 160 / BH 160-4.8	23184K	C3184K
HE 3284	OHE 3284H	(15.3/4")	400.05	420	Tr 420x5	352	540		HM 3184	MS 3180-MS 3184	86.00	3.46	M6	TE M6 01 or 02	HMV 84E	BH 100-0,7 / BH 160 / BH 160-4.8	23284K	
HE 3088	OHE 3088H	(16")	406.4	440	Tr 440x5	228	520		HM 3088	MS 3088-MS 3092	65.00	6.86	M8	TE M8 01	HMV 88E	BH 100-0,7 / BH 160 / BH 160-4.8	23088K	
HE 3188 TL	OHE 3188HTL	(16")	406.4	440	Tr 440x5	297	520		HM 3088	MS 3088-MS 3092	77.00	6.86	M8	TE M8 01	HMV 88E	BH 100-0,7 / BH 160 / BH 160-4.8		
HE 3188	OHE 3188H	(16")	406.4	440	Tr 440x5	307	560		HM 3188	MS 3188-MS 3192	95.00	6.86	M8	TE M8 01	HMV 88E	BH 100-0,7 / BH 160 / BH 160-4.8	23188K	
HE 3288	OHE 3288H	(16")	406.4	440	Tr 440x5	361	560		HM 3188	MS 3188-MS 3192	118.00	6.86	M8	TE M8 01	HMV 88E	BH 100-0,7 / BH 160 / BH 160-4.8	23288K	
HE 3092	OHE 3092H	(17")	431.8	460	Tr 460x5	234	540		HM 3092	MS 3088-MS 3092	69.50	5.51	M8	TE M8 01	HMV 92E	BH 100-0,7 / BH 160 / BH 160-4.8	23092K	C3092K
HE 3192 TL	OHE 3192HTL	(17")	431.8	460	Tr 460x5	311	540		HM 3092	MS 3088-MS 3092	84.80	5.51	M8	TE M8 01	HMV 92E	BH 100-0,7 / BH 160 / BH 160-4.8		
HE 3192	OHE 3192H	(17")	431.8	460	Tr 460x5	326	580		HM 3192	MS 3188-MS 3192	119.00	5.51	M8	TE M8 01	HMV 92E	BH 100-0,7 / BH 160 / BH 160-4.8	23192K	C3192K
HE 3292	OHE 3292H	(17")	431.8	460	Tr 460x5	382	580		HM 3192	MS 3188-MS 3192	132.00	5.51	M8	TE M8 01	HMV 92E	BH 100-0,7 / BH 160 / BH 160-4.8	23292K	
HE 3096	OHE 3096H	(18")	457.2	480	Tr 480x5	237	560		HM 3096	MS 3096-30/500	67.20	4.16	M8	TE M8 01	HMV 96E	BH 100-0,7 / BH 160 / BH 160-4.8	23096K	C3096K
HE 3196 TL	OHE 3196HTL	(18")	457.2	480	Tr 480x5	320	560		HM 3096	MS 3096-30/500	89.70	4.16	M8	TE M8 01	HMV 96E	BH 100-0,7 / BH 160 / BH 160-4.8		
HE 3196	OHE 3196H	(18")	457.2	480	Tr 480x5	335	620		HM 3196	MS 3196	135.00	4.16	M8	TE M8 01	HMV 96E	BH 100-0,7 / BH 160 / BH 160-4.8	23196K	
HE 3296	OHE 3296H	(18")	457.2	480	Tr 480x5	397	620		HM 3196	MS 3196	152.00	4.16	M8	TE M8 01	HMV 96E	BH 100-0,7 / BH 160 / BH 160-4.8	23296K	
HE 30/500	OHE 30/500H	(18.1/2")	469.9	500	Tr 500x5	247	580		HM 30/500	MS 3096-30/500	82.00	5.99	M8	TE M8 01	HMV 100E	BH 100-0,7 / BH 160 / BH 160-4.8	230/500K	C30/500K
HE 31/500 TL	OHE 31/500HT	(18.1/2")	469.9	500	Tr 500x5	344	580		HM 30/500	MS 3096-30/500	132.80	5.99	M8	TE M8 01	HMV 100E	BH 100-0,7 / BH 160 / BH 160-4.8		
HE 31/500	OHE 31/500H	(18.1/2")	469.9	500	Tr 500x5	356	630		HM 31/500	MS 31/500	132.40	5.99	M8	TE M8 01	HMV 100E	BH 100-0,7 / BH 160 / BH 160-4.8	231/500K	C31/500K
HE 32/500	OHE 32/500H	(18.1/2")	469.9	500	Tr 500x5	428	630		HM 31/500	MS 31/500	166.00	5.99	M8	TE M8 01	HMV 100E	BH 100-0,7 / BH 160 / BH 160-4.8	232/500K	

WITHDRAWAL SLEEVES

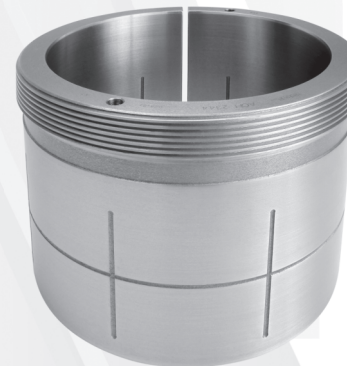
WITHDRAWAL SLEEVES AH, AHX, AH ...G, AHX ...G



Despite the name “Withdrawal”, Withdrawal sleeves are used to mount bearings with tapered bores onto a cylindrical seat of stepped shaft. While mounting, the sleeves are pushed into the bearing inner ring. The sleeve is located on the shaft by a nut or an end plate on the edge of the shaft. The thread of the withdrawal sleeve serves to withdraw the set, hence its name, withdrawal sleeve. Its accessories: lock nut, lock washer and removal nut. They all should be ordered separately.

Material: BGL Nodular (Ductile) with characteristics exceeding the DIN 1563 Standard class GJS 500-7 (formerly GGG50). Optionally in carbon steel.

HYDRAULIC WITHDRAWAL SLEEVES AOH, AOHX, AOH ...G, AOHX ...G



With the same measurements of the usual sleeves, these are recommended for medium large-sized applications, since they are provided with internal and external grooves and duct for oil injection, making the mounting and specially dismounting process much easier and quicker. Available for shafts from 150 mm.

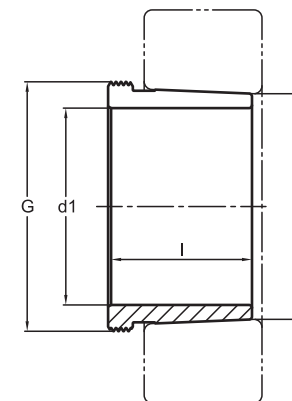
Material: BGL Nodular (Ductile) with characteristics exceeding the DIN 1563 Standard class GJS 500-7 (formerly GGG50). Optionally in carbon steel.

Note: The suffix G is the new standard for withdrawal sleeve threads from different series.



WITHDRAWAL SLEEVES

AH, AHX



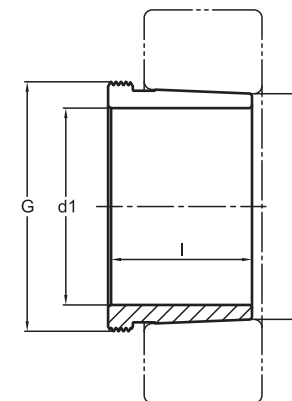
WITHDRAWAL SLEEVES AH, AHX

Part Number	Hydraulic Part Number	d1 (mm)	d (mm)	l (mm)	G*	Weight (Kg)	HYDRAULIC		NUT + MOUNTING LOCK		ASSEMBLY TOOL		Extension Tube	DISASSEMBLY TOOL			Hydraulic Pump		Bearings		
							A	G1	Assembly Nut	Lockwasher / Locking Devices	Hook Spanner	Assembly Hydraulic Nut		Withdrawal Nut	Withdrawal Hook Spanner	Withdrawal Hydraulic Nut					
AH 208		35	40	25	M 45X1,5	0,08			KM 7	MB 7	HN 7		KM 9	HN 9			1208K	20208K			
AH 308		35	40	29	M 45X1,5	0,08			KM 7	MB 7	HN 7		KM 9	HN 9			1308K	2208K	22208K	21308K	
AH 2308		35	40	40	M 45X1,5	0,12			KM 7	MB 7	HN 7		KM 9	HN 9			2308K	22308K			
AH 209		40	45	26	M 50X1,5	0,08			KM 8	MB 8	HN 8		KM 10	HN 10	HMV 10E	BH 100-0.7 / BH 160 / BH 160-4.8	1209K	20209K			
AH 309		40	45	31	M 50X1,5	0,10			KM 8	MB 8	HN 8		KM 10	HN 10	HMV 10E	BH 100-0.7 / BH 160 / BH 160-4.8	1309K	2209K	21309K	22209K	C2209K
AH 2309		40	45	44	M 50X1,5	0,15			KM 8	MB 8	HN 8		KM 10	HN 10	HMV 10E	BH 100-0.7 / BH 160 / BH 160-4.8	2309K	22309K			
AH 210		45	50	28	M 55X2	0,09			KM 9	MB 9	HN 9		KM 11	HN 11	HMV 11E	BH 100-0.7 / BH 160 / BH 160-4.8	1210K	20210K			
AHX 310		45	50	35	M 55X2	0,12			KM 9	MB 9	HN 9		KM 11	HN 11	HMV 11E	BH 100-0.7 / BH 160 / BH 160-4.8	1310K	2210K	21310K	22210K	C2210K
AHX 2310		45	50	50	M 55X2	0,18			KM 9	MB 9	HN 9		KM 11	HN 11	HMV 11E	BH 100-0.7 / BH 160 / BH 160-4.8	2310K	22310K			
AH 211		50	55	29	M 60X2	0,11			KM 10	MB 10	HN 10	HMV 10E	KM 12	HN 12	HMV 12E	BH 100-0.7 / BH 160 / BH 160-4.8	1211K	20211K			
AHX 311		50	55	37	M 60X2	0,15			KM 10	MB 10	HN 10	HMV 10E	KM 12	HN 12	HMV 12E	BH 100-0.7 / BH 160 / BH 160-4.8	1311K	2211K	21311K	22211K	C2211K
AHX 2311		50	55	54	M 60X2	0,22			KM 10	MB 10	HN 10	HMV 10E	KM 12	HN 12	HMV 12E	BH 100-0.7 / BH 160 / BH 160-4.8	2311K	22311K			
AH 212		55	60	32	M 65X2	0,16			KM 11	MB 11	HN 11	HMV 11E	KM 13	HN 13	HMV 13E	BH 100-0.7 / BH 160 / BH 160-4.8	1212K	20212K			
AHX 312		55	60	40	M 65X2	0,17			KM 11	MB 11	HN 11	HMV 11E	KM 13	HN 13	HMV 13E	BH 100-0.7 / BH 160 / BH 160-4.8	1312K	2212K	21312K	22212K	C2212K
AHX 2312		55	60	58	M 65X2	0,26			KM 11	MB 11	HN 11	HMV 11E	KM 13	HN 13	HMV 13E	BH 100-0.7 / BH 160 / BH 160-4.8	2312K	22312K			
AH 213		60	65	32,5	M 75X2	0,18			KM 12	MB 12	HN 12	HMV 12E	KM 15	HN 15	HMV 15E	BH 100-0.7 / BH 160 / BH 160-4.8	1213K	20213K			
AH 213 G		60	65	32,5	M 70X2	0,18			KM 12	MB 12	HN 12	HMV 12E	KM 14	HN 14	HMV 14E	BH 100-0.7 / BH 160 / BH 160-4.8	1213K	20213K			
AH 313		60	65	42	M 75X2	0,22			KM 12	MB 12	HN 12	HMV 12E	KM 15	HN 15	HMV 15E	BH 100-0.7 / BH 160 / BH 160-4.8	1313K	2213K	21313K	22213K	
AH 313 G		60	65	42	M 70X2	0,35			KM 12	MB 12	HN 12	HMV 12E	KM 14	HN 14	HMV 14E	BH 100-0.7 / BH 160 / BH 160-4.8	1313K	2213K	21313K	22213K	C2213K
AH 2313		60	65	61	M 75X2	0,35			KM 12	MB 12	HN 12	HMV 12E	KM 15	HN 15	HMV 15E	BH 100-0.7 / BH 160 / BH 160-4.8	2313K	22313K			
AH 2313 G		60	65	61	M 70X2	0,69			KM 12	MB 12	HN 12	HMV 12E	KM 14	HN 14	HMV 14E	BH 100-0.7 / BH 160 / BH 160-4.8	2313K	22313K			
AH 214		65	70	33,5	M 80X2	0,21			KM 13	MB 13	HN 13	HMV 13E	KM 16	HN 16	HMV 16E	BH 100-0.7 / BH 160 / BH 160-4.8	1214K	20214K			
AH 214 G		65	70	33,5	M 75X2	0,20			KM 13	MB 13	HN 13	HMV 13E	KM 15	HN 15	HMV 15E	BH 100-0.7 / BH 160 / BH 160-4.8	1214K	20214K			
AH 314		65	70	43	M 80X2	0,24			KM 13	MB 13	HN 13	HMV 13E	KM 16	HN 16	HMV 16E	BH 100-0.7 / BH 160 / BH 160-4.8	1314K	2214K	21314K	22214	
AH 314 G		65	70	43	M 75X2	0,24			KM 13	MB 13	HN 13	HMV 13E	KM 15	HN 15	HMV 15E	BH 100-0.7 / BH 160 / BH 160-4.8	1314K	2214K	21314K	K22214K	C2214K
AHX 2314		65	70	64	M 80X2	0,41			KM 13	MB 13	HN 13	HMV 13E	KM 16	HN 16	HMV 16E	BH 100-0.7 / BH 160 / BH 160-4.8	2314K	22314K			
AHX 2314 G		65	70	64	M 75X2	0,42			KM 13	MB 13	HN 13	HMV 13E	KM 15	HN 15	HMV 15E	BH 100-0.7 / BH 160 / BH 160-4.8	2314K	22314K		C2314 K	
AH 215		70	75	34,5	M 85X2	0,26			KM 14	MB 14	HN 14	HMV 14E	KM 17	HN 17	HMV 17E	BH 100-0.7 / BH 160 / BH 160-4.8	1215K	20215K			
AH 215 G		70	75	34,5	M 80X2	0,22			KM 14	MB 14	HN 14	HMV 14E	KM 16	HN 16	HMV 16E	BH 100-0.7 / BH 160 / BH 160-4.8	1215K	20215K			
AH 315		70	75	45	M 85X2	0,28			KM 14	MB 14	HN 14	HMV 14E	KM 17	HN 17	HMV 17E	BH 100-0.7 / BH 160 / BH 160-4.8	1315K	2215K	21315K	22215K	
AH 315 G		70	75	45	M 80X2	0,25			KM 14	MB 14	HN 14	HMV 14E	KM 16	HN 16	HMV 16E	BH 100-0.7 / BH 160 / BH 160-4.8	1315K	2215K	21315K	22215K	C2215K
AHX 2315		70	75	68	M 85X2	0,47			KM 14	MB 14	HN 14	HMV 14E	KM 17	HN 17	HMV 17E	BH 100-0.7 / BH 160 / BH 160-4.8	2315K	22315K			
AHX 2315 G		70	75	68	M 80X2	0,47			KM 14	MB 14	HN 14	HMV 14E	KM 16	HN 16	HMV 16E	BH 100-0.7 / BH 160 / BH 160-4.8	2315K	22315K		C2315 K	



WITHDRAWAL SLEEVES

AH, AHX

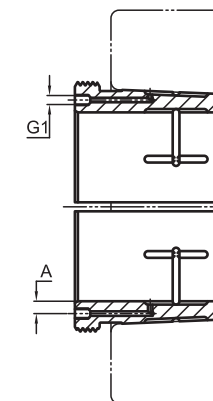
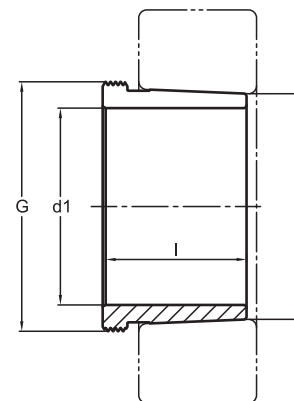


WITHDRAWAL SLEEVES AH, AHX

Part Number	Hydraulic Part Number	d1 (mm)	d (mm)	l (mm)	G*	Weight (Kg)	HYDRAULIC		NUT + MOUNTING LOCK		ASSEMBLY TOOL		Extension Tube	DISASSEMBLY TOOL			Bearings					
							A	G1	Assembly Nut	Lockwasher / Locking Devices	Hook Spanner	Assembly Hydraulic Nut		Withdrawal Nut	Withdrawal Hook Spanner	Withdrawal Hydraulic Nut	Hydraulic Pump					
AH 216		75	80	35.5	M 90X2	0.29			KM 15	MB 15	HN 15	HMV 15E		KM 18	HN 18	HMV 18E	BH 100-0.7 / BH 160 / BH 160-4.8	1216K	20216K			
AH 316		75	80	48	M 90X2	0.33			KM 15	MB 15	HN 15	HMV 15E		KM 18	HN 18	HMV 18E	BH 100-0.7 / BH 160 / BH 160-4.8	1316K	2216K	21316K	22216K	C2216K
AHX 2316		75	80	71	M 90X2	0.52			KM 15	MB 15	HN 15	HMV 15E		KM 18	HN 18	HMV 18E	BH 100-0.7 / BH 160 / BH 160-4.8	2316K	22316K			C2316 K
AH 217		80	85	38.5	M 95X2	0.29			KM 16	MB 16	HN 16	HMV 16E		KM 19	HN 19	HMV 19E	BH 100-0.7 / BH 160 / BH 160-4.8	1217K	20217K			
AHX 317		80	85	52	M 95X2	0.38			KM 16	MB 16	HN 16	HMV 16E		KM 19	HN 19	HMV 19E	BH 100-0.7 / BH 160 / BH 160-4.8	1317K	2217K	22217 EK	21317 EK	C2217 K
AHX 2317		80	85	74	M 95X2	0.59			KM 16	MB 16	HN 16	HMV 16E		KM 19	HN 19	HMV 19E	BH 100-0.7 / BH 160 / BH 160-4.8	2317K	22317K			C2317 K
AH 218		85	90	40	M 100X2	0.31			KM 17	MB 17	HN 17	HMV 17E		KM 20	HN 20	HMV 20E	BH 100-0.7 / BH 160 / BH 160-4.8	1218K	20218K			
AHX 318		85	90	53	M 100X2	0.41			KM 17	MB 17	HN 17	HMV 17E		KM 20	HN 20	HMV 20E	BH 100-0.7 / BH 160 / BH 160-4.8	1318K	2218K	21318K	22218 EK	C2218 K
AHX 3218		85	90	63	M 100X2	0.52			KM 17	MB 17	HN 17	HMV 17E		KM 20	HN 20	HMV 20E	BH 100-0.7 / BH 160 / BH 160-4.8	23218K				
AHX 2318		85	90	79	M 100X2	0.69			KM 17	MB 17	HN 17	HMV 17E		KM 20	HN 20	HMV 20E	BH 100-0.7 / BH 160 / BH 160-4.8	2318K	22318K			C2318 K
AH 219		90	95	43	M 105X2	0.40			KM 18	MB 18	HN 18	HMV 18E		KM 21	HN 21	HMV 21E	BH 100-0.7 / BH 160 / BH 160-4.8	1219K	20219K			
AHX 319		90	95	57	M 105X2	0.47			KM 18	MB 18	HN 18	HMV 18E		KM 21	HN 21	HMV 21E	BH 100-0.7 / BH 160 / BH 160-4.8	1319K	2219K	21319K	22219K	C2219K
AHX 3219		90	95	67	M 105X2	0.63			KM 18	MB 18	HN 18	HMV 18E		KM 21	HN 21	HMV 21E	BH 100-0.7 / BH 160 / BH 160-4.8	23219K				
AHX 2319		90	95	85	M 105X2	0.81			KM 18	MB 18	HN 18	HMV 18E		KM 21	HN 21	HMV 21E	BH 100-0.7 / BH 160 / BH 160-4.8	2319K	22319K			C2319 K
AH 220		95	100	45	M 110X2	0.48			KM 19	MB 19	HN 19	HMV 19E		KM 22	HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8	1220K	20220K			
AHX 320		95	100	59	M 110X2	0.52			KM 19	MB 19	HN 19	HMV 19E		KM 22	HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8	1320K	2220K	21320K	22220K	C2220K
AHX 3120		95	100	64	M 110X2	1.27			KM 19	MB 19	HN 19	HMV 19E		KM 22	HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8	23120K				C3120K
AHX 3220		95	100	73	M 110X2	0.69			KM 19	MB 19	HN 19	HMV 19E		KM 22	HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8	23220K				
AHX 2320		95	100	90	M 110X2	0.91			KM 19	MB 19	HN 19	HMV 19E		KM 22	HN 22	HMV 22E	BH 100-0.7 / BH 160 / BH 160-4.8	2320K	22320K			C2320 K
AH 222		105	110	50	M 120X2	0.55			KM 21	MB 21	HN 21	HMV 21E		KM 24	HN 24	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	1222K	20222K			
AHX 322		105	110	63	M 120X2	0.64			KM 21	MB 21	HN 21	HMV 21E		KM 24	HN 24	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	21322K	23022K			
AHX 3122		105	110	68	M 120X2	0.68			KM 21	MB 21	HN 21	HMV 21E		KM 24	HN 24	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	22222K	23122K	C3022K		C2222K
AH 24122		105	110	82	M 115X2	0.65			KM 21	MB 21	HN 21	HMV 21E		KM 23	HN 23	HMV 23E	BH 100-0.7 / BH 160 / BH 160-4.8	24122K30				C4122K30V
AHX 3222		105	110	82	M 125X2	0.94			KM 21	MB 21	HN 21	HMV 21E		KM 25	HN 25	HMV 25E	BH 100-0.7 / BH 160 / BH 160-4.8	23222K				
AHX 3222 G		105	110	82	M 120X2	0.94			KM 21	MB 21	HN 21	HMV 21E		KM 24	HN 24	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	23222K2				
AHX 2322		105	110	98	M 125X2	1.22			KM 21	MB 21	HN 21	HMV 21E		KM 25	HN 25	HMV 25E	BH 100-0.7 / BH 160 / BH 160-4.8	2322K				
AHX 2322 G		105	110	98	M 120X2	1.22			KM 21	MB 21	HN 21	HMV 21E		KM 24	HN 24	HMV 24E	BH 100-0.7 / BH 160 / BH 160-4.8	22322K				
AHX 3024		115	120	60	M 130X2	0.77			KM 23	MB 23	HN 23	HMV 23E		KM 26	HN 26	HMV 26E	BH 100-0.7 / BH 160 / BH 160-4.8	23024K				C3024K
AHX 324		115	120	69	M 130X2	0.89			KM 23	MB 23	HN 23	HMV 23E		KM 26	HN 26	HMV 26E	BH 100-0.7 / BH 160 / BH 160-4.8					
AH 24024		115	120	73	M 125X2	0.62			KM 23	MB 23	HN 23	HMV 23E		KM 25	HN 25	HMV 26E	BH 100-0.7 / BH 160 / BH 160-4.8	24024K30				C4024K
AHX 3124		115	120	75	M 130X2	0.85			KM 23	MB 23	HN 23	HMV 23E		KM 26	HN 26	HMV 26E	BH 100-0.7 / BH 160 / BH 160-4.8	22224K				3023124K C2224K
AHX 3224		115	120	90	M 135X2	1.16			KM 23	MB 23	HN 23	HMV 23E		KM 27	HN 27	HMV 27E	BH 100-0.7 / BH 160 / BH 160-4.8	23224K				
AHX 3224 G		115	120	90	M 130X2	1.20			KM 23	MB 23	HN 23	HMV 23E		KM 26	HN 26	HMV 26E	BH 100-0.7 / BH 160 / BH 160-4.8	23224K				C3224K
AH 24124		115	120	93	M 130X2	0.91			KM 23	MB 23	HN 23	HMV 23E		KM 26	HN 26	HMV 26E	BH 100-0.7 / BH 160 / BH 160-4.8	24124K30				C4124K30V



WITHDRAWAL SLEEVES
AH, AHX, AOH, AOHX



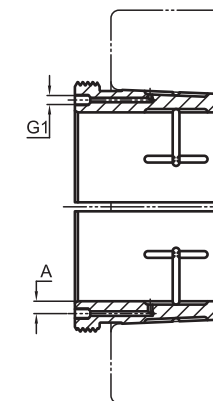
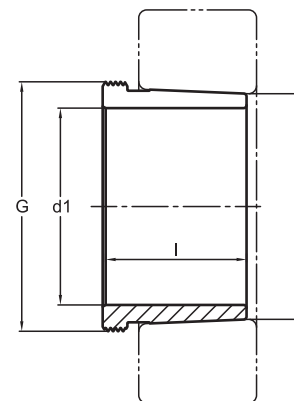
WITHDRAWAL SLEEVES AH, AHX

HYDRAULIC WITHDRAWAL SLEEVES
AOH, AOHX

Part Number	Hydraulic Part Number	d1 (mm)	d (mm)	l (mm)	G*	Weight (Kg)	HYDRAULIC		NUT + MOUNTING LOCK		ASSEMBLY TOOL		Extension Tube	DISASSEMBLY TOOL			Hydraulic Pump	Bearings	
							A	G1	Assembly Nut	Lockwasher / Locking Devices	Hook Spanner	Assembly Hydraulic Nut		Withdrawal Nut	Withdrawal Hook Spanner	Withdrawal Hydraulic Nut			
AHX 2324		115	120	105	M 135X2	1.43			KM 23	MB 23	HN 23	HMV 23E		KM 27	HN 27	HMV 27E	BH 100-0.7 / BH 160 / BH 160-4.8	22324K	
AHX 2324 G		115	120	105	M 130X2	1.43			KM 23	MB 23	HN 23	HMV 23E		KM 26	HN 26	HMV 26E	BH 100-0.7 / BH 160 / BH 160-4.8	22324K	
AH 226		125	130	53	M 140X2	0.72			KM 25	MB 25	HN 25	HMV 25E		KM 28	HN 28	HMV 28E	BH 100-0.7 / BH 160 / BH 160-4.8		
AHX 3026		125	130	67	M 140X2	0.94			KM 25	MB 25	HN 25	HMV 25E		KM 28	HN 28	HMV 28E	BH 100-0.7 / BH 160 / BH 160-4.8	23026K	C3026K
AHX 326		125	130	74	M 140X2	1.05			KM 25	MB 25	HN 25	HMV 25E		KM 28	HN 28	HMV 28E	BH 100-0.7 / BH 160 / BH 160-4.8		
AHX 3126		125	130	78	M 140X2	0.97			KM 25	MB 25	HN 25	HMV 25E		KM 28	HN 28	HMV 28E	BH 100-0.7 / BH 160 / BH 160-4.8	22226K	23126K C2226K
AH 24026		125	130	83	M 135X2	0.77			KM 25	MB 25	HN 25	HMV 25E		KM 27	HN 27	HMV 27E	BH 100-0.7 / BH 160 / BH 160-4.8	24026K30	C4026K30
AH 24126		125	130	94	M 140X2	1.01			KM 25	MB 25	HN 25	HMV 25E		KM 28	HN 28	HMV 28E	BH 100-0.7 / BH 160 / BH 160-4.8	24126K30	C4126K30V
AHX 3226		125	130	98	M 145X2	1.42			KM 25	MB 25	HN 25	HMV 25E		KM 29	HN 29	HMV 29E	BH 100-0.7 / BH 160 / BH 160-4.8	23226K	
AHX 3226 G		125	130	98	M 140X2	1.42			KM 25	MB 25	HN 25	HMV 25E		KM 28	HN 28	HMV 28E	BH 100-0.7 / BH 160 / BH 160-4.8	23226K	
AHX 2326		125	130	115	M 145X2	1.78			KM 25	MB 25	HN 25	HMV 25E		KM 29	HN 29	HMV 29E	BH 100-0.7 / BH 160 / BH 160-4.8	22326K	
AHX 2326 G		125	130	115	M 140X2	1.20			KM 25	MB 25	HN 25	HMV 25E		KM 28	HN 28	HMV 28E	BH 100-0.7 / BH 160 / BH 160-4.8	22326K	C2326K
AH 228		135	140	56	M 150X2	0.83			KM 27	MB 27	HN 27	HMV 27E		KM 30	HN 30	HMV 30E	BH 100-0.7 / BH 160 / BH 160-4.8		
AHX 3028		135	140	68	M 150X2	0.90			KM 27	MB 27	HN 27	HMV 27E		KM 30	HN 30	HMV 30E	BH 100-0.7 / BH 160 / BH 160-4.8	23028K	C3028K
AHX 328		135	140	77	M 150X2	1.18			KM 27	MB 27	HN 27	HMV 27E		KM 30	HN 30	HMV 30E	BH 100-0.7 / BH 160 / BH 160-4.8		
AH 24028		135	140	83	M 145X2	0.84			KM 27	MB 27	HN 27	HMV 27E		KM 29	HN 29	HMV 29E	BH 100-0.7 / BH 160 / BH 160-4.8	24028K30	C4028K30
AHX 3128		135	140	83	M 150X2	1.13			KM 27	MB 27	HN 27	HMV 27E		KM 30	HN 30	HMV 30E	BH 100-0.7 / BH 160 / BH 160-4.8	22228K	23128K C2228K
AH 24128		135	140	99	M 150X2	1.20			KM 27	MB 27	HN 27	HMV 27E		KM 30	HN 30	HMV 30E	BH 100-0.7 / BH 160 / BH 160-4.8	24128K30	C4128K30V
AHX 3228		135	140	104	M 155X3	1.63			KM 27	MB 27	HN 27	HMV 27E		KM 31	HN 31	HMV 31E	BH 100-0.7 / BH 160 / BH 160-4.8	23228K	
AHX 3228 G		135	140	104	M 150X2	1.63			KM 27	MB 27	HN 27	HMV 27E		KM 30	HN 30	HMV 30E	BH 100-0.7 / BH 160 / BH 160-4.8	23228K	
AHX 2328		135	140	125	M 155X3	2.08			KM 27	MB 27	HN 27	HMV 27E		KM 31	HN 31	HMV 31E	BH 100-0.7 / BH 160 / BH 160-4.8	22328K	
AHX 2328 G		135	140	125	M 150X2	1.97			KM 27	MB 27	HN 27	HMV 27E		KM 30	HN 30	HMV 30E	BH 100-0.7 / BH 160 / BH 160-4.8	22328K	
AH 230		145	150	60	M 160X3	0.97			KM 29	MB 29	HN 29	HMV 29E		KM 32	HN 32-HN 33	HMV 32E	BH 100-0.7 / BH 160 / BH 160-4.8		
AHX 3030		145	150	72	M 160X3	1.02			KM 29	MB 29	HN 29	HMV 29E		KM 32	HN 32-HN 33	HMV 32E	BH 100-0.7 / BH 160 / BH 160-4.8	23030K	C3030K
AHX 330 G		145	150	83	M 160X3	1.39			KM 29	MB 29	HN 29	HMV 29E		KM 32	HN 32-HN 33	HMV 32E	BH 100-0.7 / BH 160 / BH 160-4.8		
AH 24030		145	150	90	M 155X3	0.95			KM 29	MB 29	HN 29	HMV 29E		KM 31	HN 31	HMV 31E	BH 100-0.7 / BH 160 / BH 160-4.8	24030K30	C4030K30
AHX 3130		145	150	96	M 165X3	1.60			KM 29	MB 29	HN 29	HMV 29E		KM 33	HN 32-HN 33	HMV 33E	BH 100-0.7 / BH 160 / BH 160-4.8	22230K	23130K
AHX 3130 G		145	150	96	M 160X3	1.40			KM 29	MB 29	HN 29	HMV 29E		KM 32	HN 32-HN 33	HMV 32E	BH 100-0.7 / BH 160 / BH 160-4.8	22230K	23130K C2230K C3130K
AHX 3230		145	150	114	M 165X3	2.00			KM 29	MB 29	HN 29	HMV 29E		KM 33	HN 32-HN 33	HMV 30E	BH 100-0.7 / BH 160 / BH 160-4.8	23230K	
AHX 3230 G		145	150	114	M 160X3	2.00			KM 29	MB 29	HN 29	HMV 29E		KM 32	HN 32-HN 33	HMV 32E	BH 100-0.7 / BH 160 / BH 160-4.8	23230K	
AH 24130		145	150	115	M 160X3	1.47			KM 29	MB 29	HN 29	HMV 29E		KM 32	HN 32-HN 33	HMV 32E	BH 100-0.7 / BH 160 / BH 160-4.8	24130K30	C4130K30V
AHX 2330		145	150	135	M 165X3	2.50			KM 29	MB 29	HN 29	HMV 29E		KM 33	HN 32-HN 33	HMV 33E	BH 100-0.7 / BH 160 / BH 160-4.8	22330K	
AHX 2330 G		145	150	135	M 160X3	2.28			KM 29	MB 29	HN 29	HMV 29E		KM 32	HN 32-HN 33	HMV 32E	BH 100-0.7 / BH 160 / BH 160-4.8	22330K	
AH 232		150	160	64	M 170X3	1.71			KM 30	MB 30	HN 30	HMV 30E		KM 34	HN 34	HMV 34E	BH 100-0.7 / BH 160 / BH 160-4.8		
AH 3032	AOH 3032	150	160	77	M 170X3	1.83	3.7	M6	KM 30	MB 30	HN 30	HMV 30E	TE M6 01 or 02	KM 34	HN 34	HMV 34E	BH 100-0.7 / BH 160 / BH 160-4.8	23032K	C3032K
AH 332 G	AOH 332 G	150	160	88	M 170X3	2.76	3.7	M6	KM 30	MB 30	HN 30	HMV 30E	TE M6 01 or 02	KM 34	HN 34	HMV 34E	BH 100-0.7 / BH 160 / BH 160-4.8		



WITHDRAWAL SLEEVES
AH, AHX, AOH, AOHX



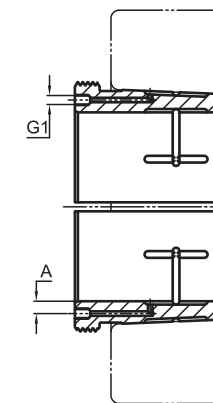
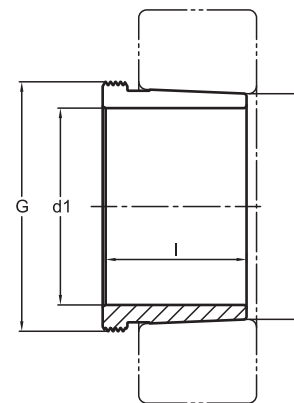
WITHDRAWAL SLEEVES AH, AHX

HYDRAULIC WITHDRAWAL SLEEVES
AOH, AOHX

Part Number	Hydraulic Part Number	d1 (mm)	d (mm)	l (mm)	G*	HYDRAULIC			NUT + MOUNTING LOCK		ASSEMBLY TOOL		DISASSEMBLY TOOL			Hydraulic Pump	Bearings		
						Weight (Kg)	A	G1	Assembly Nut	Lockwasher / Locking Devices	Hook Spanner	Assembly Hydraulic Nut	Extension Tube	Withdrawal Nut	Withdrawal Hook Spanner		Withdrawal Hydraulic Nut		
AH 24032	AOH 24032	150	160	95	M 170X3	2.08	3.7	M6	KM 30	MB 30	HN 30	HMV 30E	TE M6 01 or 02	KM 34	HN 34	HMV 34E	BH 100-0.7 / BH 160 / BH 160-4.8	24032K30	C4032K30
AH 3132	AOH 3132	150	160	103	M 180X3	2.89	4.8	M6	KM 30	MB 30	HN 30	HMV 30E	TE M6 01 or 02	KM 36	HN 36	HMV 36E	BH 100-0.7 / BH 160 / BH 160-4.8	22232K	23132K
AH 3132 G	AOH 3132 G	150	160	103	M 170X3	2.60	4	M6	KM 30	MB 30	HN 30	HMV 30E	TE M6 01 or 02	KM 34	HN 34	HMV 34E	BH 100-0.7 / BH 160 / BH 160-4.8	22232K	23132K C3132K
AH 24132	AOH 24132	150	160	124	M 170X3	2.67	4	M6	KM 30	MB 30	HN 30	HMV 30E	TE M6 01 or 02	KM 34	HN 34	HMV 34E	BH 100-0.7 / BH 160 / BH 160-4.8	24132K30	C4132K30V
AH 3232	AOH 3232	150	160	124	M 180X3	3.61	5	M6	KM 30	MB 30	HN 30	HMV 30E	TE M6 01 or 02	KM 36	HN 36	HMV 36E	BH 100-0.7 / BH 160 / BH 160-4.8	23232K	
AH 3232 G	AOH 3232 G	150	160	124	M 170X3	3.61	4	M6	KM 30	MB 30	HN 30	HMV 30E	TE M6 01 or 02	KM 34	HN 34	HMV 34E	BH 100-0.7 / BH 160 / BH 160-4.8	23232K	C3232K
AH 2332	AOH 2332	150	160	140	M 180X3	4.20	5.25	M6	KM 30	MB 30	HN 30	HMV 30E	TE M6 01 or 02	KM 36	HN 36	HMV 36E	BH 100-0.7 / BH 160 / BH 160-4.8	22332K	
AH 2332 G	AOH 2332 G	150	160	140	M 170X3	4.20	4	M6	KM 30	MB 30	HN 30	HMV 30E	TE M6 01 or 02	KM 34	HN 34	HMV 34E	BH 100-0.7 / BH 160 / BH 160-4.8	22332K	
AH 3934	AOH 3934	160	170	59	M 180X3	1.59	3.7	M6	KM 32	MB 32	HN 32-HN 33	HMV 32E	TE M6 01 or 02	KM 36	HN 36	HMV 36E	BH 100-0.7 / BH 160 / BH 160-4.8	23934K	
AH 234	AOH 234	160	170	69	M 180X3	1.98	3.7	M6	KM 32	MB 32	HN 32-HN 33	HMV 32E	TE M6 01 or 02	KM 36	HN 36	HMV 36E	BH 100-0.7 / BH 160 / BH 160-4.8		
AH 3034	AOH 3034	160	170	85	M 180X3	2.18	4	M6	KM 32	MB 32	HN 32-HN 33	HMV 32E	TE M6 01 or 02	KM 36	HN 36	HMV 36E	BH 100-0.7 / BH 160 / BH 160-4.8	23034K	C3034K
AH 334 G	AOH 334 G	160	170	93	M 180X3	2.75	4	M6	KM 32	MB 32	HN 32-HN 33	HMV 32E	TE M6 01 or 02	KM 36	HN 36	HMV 36E	BH 100-0.7 / BH 160 / BH 160-4.8		
AH 3134	AOH 3134	160	170	104	M 190X3	3.10	4.75	M6	KM 32	MB 32	HN 32-HN 33	HMV 32E	TE M6 01 or 02	KM 38	HN 38	HMV 38E	BH 100-0.7 / BH 160 / BH 160-4.8	22234K	23134K
AH 3134 G	AOH 3134 G	160	170	104	M 180X3	2.80	4	M6	KM 32	MB 32	HN 32-HN 33	HMV 32E	TE M6 01 or 02	KM 36	HN 36	HMV 36E	BH 100-0.7 / BH 160 / BH 160-4.8	22234K	23134K C2234K C3134K
AH 24034	AOH 24034	160	170	106	M 180X3	2.44	3.8	M6	KM 32	MB 32	HN 32-HN 33	HMV 32E	TE M6 01 or 02	KM 36	HN 36	HMV 36E	BH 100-0.7 / BH 160 / BH 160-4.8	24034K30	C4034K30
AH 24134	AOH 24134	160	170	125	M 180X3	2.95	4	M6	KM 32	MB 32	HN 32-HN 33	HMV 32E	TE M6 01 or 02	KM 36	HN 36	HMV 36E	BH 100-0.7 / BH 160 / BH 160-4.8	24134K30	C4134K30V
AH 3234	AOH 3234	160	170	134	M 190X3	4.23	5.25	M6	KM 32	MB 32	HN 32-HN 33	HMV 32E	TE M6 01 or 02	KM 38	HN 38	HMV 38E	BH 100-0.7 / BH 160 / BH 160-4.8	23234K	
AH 3234 G	AOH 3234 G	160	170	134	M 180X3	4.23	4	M6	KM 32	MB 32	HN 32-HN 33	HMV 32E	TE M6 01 or 02	KM 36	HN 36	HMV 36E	BH 100-0.7 / BH 160 / BH 160-4.8	23234K	
AH 2334	AOH 2334	160	170	146	M 190X3	4.73	5.5	M6	KM 32	MB 32	HN 32-HN 33	HMV 32E	TE M6 01 or 02	KM 38	HN 38	HMV 38E	BH 100-0.7 / BH 160 / BH 160-4.8	22334K	
AH 2334 G	AOH 2334 G	160	170	146	M 180X3	4.20	4	M6	KM 32	MB 32	HN 32-HN 33	HMV 32E	TE M6 01 or 02	KM 36	HN 36	HMV 36E	BH 100-0.7 / BH 160 / BH 160-4.8	22334K	
AH 3936	AOH 3936	170	180	66	M 190X3	1.91	3.7	M6	KM 34	MB 34	HN 34	HMV 34E	TE M6 01 or 02	KM 38	HN 38	HMV 38E	BH 100-0.7 / BH 160 / BH 160-4.8	23936K	
AH 236	AOH 236	170	180	69	M 190X3	2.10	3.7	M6	KM 34	MB 34	HN 34	HMV 34E	TE M6 01 or 02	KM 38	HN 38	HMV 38E	BH 100-0.7 / BH 160 / BH 160-4.8		
AH 3036	AOH 3036	170	180	92	M 190X3	2.53	4	M6	KM 34	MB 34	HN 34	HMV 34E	TE M6 01 or 02	KM 38	HN 38	HMV 38E	BH 100-0.7 / BH 160 / BH 160-4.8	23036K	C3036K
AH 2236	AOH 2236	170	180	105	M 200X3	3.31	4.75	M6	KM 34	MB 34	HN 34	HMV 34E	TE M6 01 or 02	KM 40	HN 40	HMV 40E	BH 100-0.7 / BH 160 / BH 160-4.8	22236K	
AH 2236 G	AOH 2236 G	170	180	105	M 190X3	3.31	4	M6	KM 34	MB 34	HN 34	HMV 34E	TE M6 01 or 02	KM 38	HN 38	HMV 38E	BH 100-0.7 / BH 160 / BH 160-4.8	22236K	
AH 24036	AOH 24036	170	180	116	M 190X3	2.87	3.75	M6	KM 34	MB 34	HN 34	HMV 34E	TE M6 01 or 02	KM 38	HN 38	HMV 38E	BH 100-0.7 / BH 160 / BH 160-4.8	24036K30	C4036K30
AH 3136	AOH 3136	170	180	116	M 200X3	3.78	5	M6	KM 34	MB 34	HN 34	HMV 34E	TE M6 01 or 02	KM 40	HN 40	HMV 40E	BH 100-0.7 / BH 160 / BH 160-4.8	23136K	
AH 3136 G	AOH 3136 G	170	180	116	M 190X3	3.78	4	M6	KM 34	MB 34	HN 34	HMV 34E	TE M6 01 or 02	KM 38	HN 38	HMV 38E	BH 100-0.7 / BH 160 / BH 160-4.8	23136K	C3136K
AH 24136	AOH 24136	170	180	134	M 190X3	3.37	4	M6	KM 34	MB 34	HN 34	HMV 34E	TE M6 01 or 02	KM 38	HN 38	HMV 38E	BH 100-0.7 / BH 160 / BH 160-4.8	24136K30	C4136K30V
AH 3236	AOH 3236	170	180	140	M 200X3	4.76	5.25	M6	KM 34	MB 34	HN 34	HMV 34E	TE M6 01 or 02	KM 40	HN 40	HMV 40E	BH 100-0.7 / BH 160 / BH 160-4.8	23236K	
AH 3236 G	AOH 3236 G	170	180	140	M 190X3	4.76	4	M6	KM 34	MB 34	HN 34	HMV 34E	TE M6 01 or 02	KM 38	HN 38	HMV 38E	BH 100-0.7 / BH 160 / BH 160-4.8	23236K	
AH 2336	AOH 2336	170	180	154	M 200X3	5.35	5.5	M6	KM 34	MB 34	HN 34	HMV 34E	TE M6 01 or 02	KM 40	HN 40	HMV 40E	BH 100-0.7 / BH 160 / BH 160-4.8	22336K	
AH 2336 G	AOH 2336 G	170	180	154	M 190X3	5.35	4	M6	KM 34	MB 34	HN 34	HMV 34E	TE M6 01 or 02	KM 38	HN 38	HMV 38E	BH 100-0.7 / BH 160 / BH 160-4.8	22336K	
AH 3938	AOH 3938	180	190	66	M 200X3	2.02	3.7	M6	KM 36	MB 36	HN 36	HMV 36E	TE M6 01 or 02	KM 40	HN 40	HMV 40E	BH 100-0.7 / BH 160 / BH 160-4.8	23938K	
AH 238 G	AOH 238 G	180	190	73	M 200X3	2.57	3.7	M6	KM 36	MB 36	HN 36	HMV 36E	TE M6 01 or 02	KM 40	HN 40	HMV 40E	BH 100-0.7 / BH 160 / BH 160-4.8		
AH 3038	AOH 3038	180	190	96	TR 205X4	3.02	4.3	M6	KM 36	MB 36	HN 36	HMV 36E	TE M6 01 or 02	HML 41T	HN 40	HMV 42E	BH 100-0.7 / BH 160 / BH 160-4.8	23038K	
AH 3038 G	AOH 3038 G	180	190	96	M 200X3	3.02	4	M6	KM 36	MB 36	HN 36	HMV 36E	TE M6 01 or 02	KM 40	HN 40	HMV 40E	BH 100-0.7 / BH 160 / BH 160-4.8	23038K	C3038K



WITHDRAWAL SLEEVES
AH, AHX, AOH, AOHX



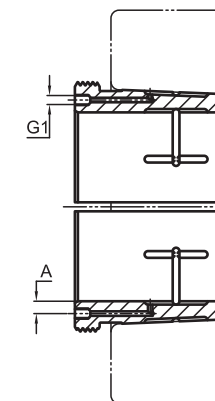
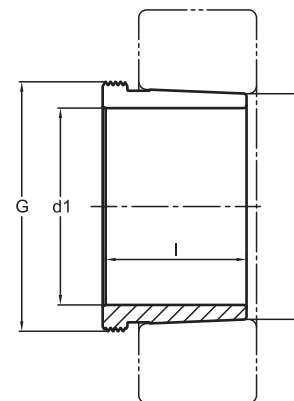
WITHDRAWAL SLEEVES AH, AHX

HYDRAULIC WITHDRAWAL SLEEVES
AOH, AOHX

Part Number	Hydraulic Part Number	d1 (mm)	d (mm)	l (mm)	G*	HYDRAULIC			NUT + MOUNTING LOCK		ASSEMBLY TOOL		DISASSEMBLY TOOL			Hydraulic Pump	Bearings	
						Weight (Kg)	A	G1	Assembly Nut	Lockwasher / Locking Devices	Hook Spanner	Assembly Hydraulic Nut	Extension Tube	Withdrawal Nut	Withdrawal Hook Spanner			Withdrawal Hydraulic Nut
AH 2238	AOH 2238	180	190	112	TR 210X4	3.79	4.75	M6	KM 36	MB 36	HN 36	HMV 36E	TE M6 01 or 02	HM 42T	HN 40	HMV 42E	BH 100-0.7 / BH 160 / BH 160-4.8	22238K
AH 2238 G	AOH 2238 G	180	190	112	M 200X3	3.40	4	M6	KM 36	MB 36	HN 36	HMV 36E	TE M6 01 or 02	KM 40	HN 40	HMV 40E	BH 100-0.7 / BH 160 / BH 160-4.8	22238K
AH 24038	AOH 24038	180	190	118	M 200X3	3.10	3.75	M6	KM 36	MB 36	HN 36	HMV 36E	TE M6 01 or 02	KM 40	HN 40	HMV 40E	BH 100-0.7 / BH 160 / BH 160-4.8	24038K30
AH 24038 G	AOH 24038 G	180	190	118	M 200X3	3.10	3.75	M6	KM 36	MB 36	HN 36	HMV 36E	TE M6 01 or 02	KM 40	HN 40	HMV 40E	BH 100-0.7 / BH 160 / BH 160-4.8	C4038K30
AH 3138	AOH 3138	180	190	125	TR 210X4	4.34	5	M6	KM 36	MB 36	HN 36	HMV 36E	TE M6 01 or 02	HM 42T	HN 40	HMV 42E	BH 100-0.7 / BH 160 / BH 160-4.8	23138K
AH 3138 G	AOH 3138 G	180	190	125	M 200X3	4.34	4	M6	KM 36	MB 36	HN 36	HMV 36E	TE M6 01 or 02	KM 40	HN 40	HMV 40E	BH 100-0.7 / BH 160 / BH 160-4.8	23138K
AH 3238	AOH 3238	180	190	145	TR 210X4	5.21	5	M6	KM 36	MB 36	HN 36	HMV 36E	TE M6 01 or 02	HM 42T	HN 40	HMV 42E	BH 100-0.7 / BH 160 / BH 160-4.8	23238K
AH 3238 G	AOH 3238 G	180	190	145	M 200X3	5.21	4	M6	KM 36	MB 36	HN 36	HMV 36E	TE M6 01 or 02	KM 40	HN 40	HMV 40E	BH 100-0.7 / BH 160 / BH 160-4.8	23238K
AH 24138	AOH 24138	180	190	146	M 200X3	3.92	4	M6	KM 36	MB 36	HN 36	HMV 36E	TE M6 01 or 02	KM 40	HN 40	HMV 40E	BH 100-0.7 / BH 160 / BH 160-4.8	24138K30
AH 2338	AOH 2338	180	190	160	TR 210X4	5.91	5.75	M6	KM 36	MB 36	HN 36	HMV 36E	TE M6 01 or 02	HM 42T	HN 40	HMV 42E	BH 100-0.7 / BH 160 / BH 160-4.8	22338K
AH 2338 G	AOH 2338 G	180	190	160	M 200X3	5.91	4	M6	KM 36	MB 36	HN 36	HMV 36E	TE M6 01 or 02	KM 40	HN 40	HMV 40E	BH 100-0.7 / BH 160 / BH 160-4.8	22338K
AH 240 G	AOH 240 G	190	200	77	TR 210X4	2.88	3.7	M6	KM 38	MB 38	HN 38	HMV 38E	TE M6 01 or 02	HM 42T	HN 40	HMV 42E	BH 100-0.7 / BH 160 / BH 160-4.8	
AH 3940	AOH 3940	190	200	77	TR 210X4	2.62	3.7	M6	KM 38	MB 38	HN 38	HMV 38E	TE M6 01 or 02	HM 42T	HN 40	HMV 42E	BH 100-0.7 / BH 160 / BH 160-4.8	23940K
AH 3040	AOH 3040	190	200	102	TR 215X4	3.36	4.5	M6	KM 38	MB 38	HN 38	HMV 38E	TE M6 01 or 02	HML 43T	HN 40	HMV 42E	BH 100-0.7 / BH 160 / BH 160-4.8	23040K
AH 3040 G	AOH 3040 G	190	200	102	TR 210X4	3.36	3.8	M6	KM 38	MB 38	HN 38	HMV 38E	TE M6 01 or 02	HM 42T	HN 40	HMV 42E	BH 100-0.7 / BH 160 / BH 160-4.8	23040K
AH 2240	AOH 2240	190	200	118	TR 220X4	4.28	5	M6	KM 38	MB 38	HN 38	HMV 38E	TE M6 01 or 02	HM 3044	HN 44	HMV 44E	BH 100-0.7 / BH 160 / BH 160-4.8	22240K
AH 24040	AOH 24040	190	200	127	TR 210X4	3.55	3.8	M6	KM 38	MB 38	HN 38	HMV 38E	TE M6 01 or 02	HM 42T	HN 40	HMV 42E	BH 100-0.7 / BH 160 / BH 160-4.8	24040K30
AH 3140	AOH 3140	190	200	134	TR 220X4	4.98	5	M6	KM 38	MB 38	HN 38	HMV 38E	TE M6 01 or 02	HM 3044	HN 44	HMV 44E	BH 100-0.7 / BH 160 / BH 160-4.8	23140K
AH 3240	AOH 3240	190	200	153	TR 220X4	5.83	5.5	M6	KM 38	MB 38	HN 38	HMV 38E	TE M6 01 or 02	HM 3044	HN 44	HMV 44E	BH 100-0.7 / BH 160 / BH 160-4.8	23240K
AH 24140	AOH 24140	190	200	158	TR 210X4	4.51	3.8	M6	KM 38	MB 38	HN 38	HMV 38E	TE M6 01 or 02	HM 42T	HN 40	HMV 42E	BH 100-0.7 / BH 160 / BH 160-4.8	24140K30
AH 2340	AOH 2340	190	200	170	TR 220X4	6.75	6	M6	KM 38	MB 38	HN 38	HMV 38E	TE M6 01 or 02	HM 3044	HN 44	HMV 44E	BH 100-0.7 / BH 160 / BH 160-4.8	22340K
AH 3944	AOH 3944	200	220	77	TR 230X4	4.83	6.5	G 1/8	KM 40	MB 40	HN 40	HMV 40E	TE 1/8BSP 01	HM 46T		HMV 46E	BH 100-0.7 / BH 160 / BH 160-4.8	23944K
AH 244 G	AOH 244 G	200	220	85	TR 230X4	5.36	6.5	G 1/8	KM 40	MB 40	HN 40	HMV 40E	TE 1/8BSP 01	HM 46T		HMV 46E	BH 100-0.7 / BH 160 / BH 160-4.8	
AH 3044	AOH 3044	200	220	111	TR 235X4	6.59	8	G 1/8	KM 40	MB 40	HN 40	HMV 40E	TE 1/8BSP 01	HML 47T		HMV 47E	BH 100-0.7 / BH 160 / BH 160-4.8	23044K
AH 3044 G	AOH 3044 G	200	220	111	TR 230X4	6.20	6.5	G 1/8	KM 40	MB 40	HN 40	HMV 40E	TE 1/8BSP 01	HM 46T		HMV 46E	BH 100-0.7 / BH 160 / BH 160-4.8	23044K
AH 2244	AOH 2244	200	220	130	TR 240X4	8.13	9	G 1/8	KM 40	MB 40	HN 40	HMV 40E	TE 1/8BSP 01	HM 3048		HMV 48E	BH 100-0.7 / BH 160 / BH 160-4.8	22244K
AH 24044	AOH 24044	200	220	138	TR 230X4	7.38	6.5	G 1/8	KM 40	MB 40	HN 40	HMV 40E	TE 1/8BSP 01	HM 46T		HMV 46E	BH 100-0.7 / BH 160 / BH 160-4.8	24044K30
AH 3144	AOH 3144	200	220	145	TR 240X4	9.37	9	G 1/8	KM 40	MB 40	HN 40	HMV 40E	TE 1/8BSP 01	HM 3048		HMV 48E	BH 100-0.7 / BH 160 / BH 160-4.8	23144K
AH 24144	AOH 24144	200	220	170	TR 230X4	9.24	6.5	G 1/8	KM 40	MB 40	HN 40	HMV 40E	TE 1/8BSP 01	HM 46T		HMV 46E	BH 100-0.7 / BH 160 / BH 160-4.8	24144K30
AH 2344	AOH 2344	200	220	181	TR 240X4	12.00	9	G 1/8	KM 40	MB 40	HN 40	HMV 40E	TE 1/8BSP 01	HM 3048		HMV 48E	BH 100-0.7 / BH 160 / BH 160-4.8	22344K
AH 3948	AOH 3948	220	240	77	TR 250X4	5.29	6.5	G 1/8	HM 3044	MS 3044	HN 44	HMV 44E	TE 1/8BSP 01	HM 50T		HMV 50E	BH 100-0.7 / BH 160 / BH 160-4.8	23948K
AH 248	AOH 248	220	240	96	TR 260X4	7.41	8	G 1/8	HM 3044	MS 3044	HN 44	HMV 44E	TE 1/8BSP 01	HM 3052		HMV 52E	BH 100-0.7 / BH 160 / BH 160-4.8	
AH 3048	AOH 3048	220	240	116	TR 260X4	7.95	8	G 1/8	HM 3044	MS 3044	HN 44	HMV 44E	TE 1/8BSP 01	HM 3052		HMV 52E	BH 100-0.7 / BH 160 / BH 160-4.8	23048K
AH 24048	AOH 24048	220	240	138	TR 250X4	8.04	6.5	G 1/8	HM 3144	MS 3144-MS 3148	HN 44	HMV 44E	TE 1/8BSP 01	HM 50T		HMV 50E	BH 100-0.7 / BH 160 / BH 160-4.8	24048K30
AH 2248	AOH 2248	220	240	144	TR 260X4	10.20	9	G 1/8	HM 3044	MS 3044	HN 44	HMV 44E	TE 1/8BSP 01	HM 3052		HMV 52E	BH 100-0.7 / BH 160 / BH 160-4.8	22248K
AH 3148	AOH 3148	220	240	154	TR 260X4	10.97	9	G 1/8	HM 3144	MS 3144-MS 3148	HN 44	HMV 44E	TE 1/8BSP 01	HM 3052		HMV 52E	BH 100-0.7 / BH 160 / BH 160-4.8	23148K
AH 24148	AOH 24148	220	240	180	TR 260X4	11.40	8.5	G 1/4	HM 3144	MS 3144-MS 3148	HN 44	HMV 44E	TE 1/4BSP 01	HM 3052		HMV 52E	BH 100-0.7 / BH 160 / BH 160-4.8	24148K30
AH 2348	AOH 2348	220	240	189	TR 260X4	13.94	9	G 1/8	HM 3144	MS 3144-MS 3148	HN 44	HMV 44E	TE 1/8BSP 01	HM 3052		HMV 52E	BH 100-0.7 / BH 160 / BH 160-4.8	22348K



WITHDRAWAL SLEEVES
AH, AHX, AOH, AOHX



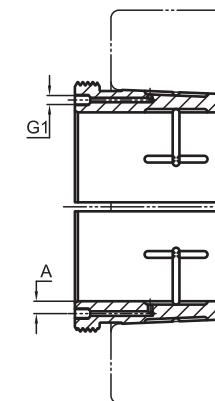
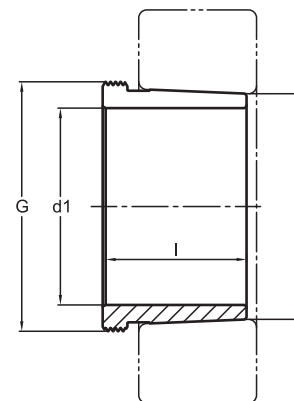
WITHDRAWAL SLEEVES AH, AHX

HYDRAULIC WITHDRAWAL SLEEVES
AOH, AOHX

Part Number	Hydraulic Part Number	d1 (mm)	d (mm)	l (mm)	G*	HYDRAULIC			NUT + MOUNTING LOCK		ASSEMBLY TOOL			DISASSEMBLY TOOL			Hydraulic Pump	Bearings
						Weight (Kg)	A	G1	Assembly Nut	Lockwasher / Locking Devices	Hook Spanner	Assembly Hydraulic Nut	Extension Tube	Withdrawal Nut	Withdrawal Hook Spanner	Withdrawal Hydraulic Nut		
AH 3952	AOH 3952	240	260	94	TR 275X4	7.36	8	G 1/8	HM 3048	MS 3048-MS 3052		HMV 48E	TE 1/8BSP 01	HMLL 55T			BH 100-0.7 / BH 160 / BH 160-4.8	23952K
AH 3952 G	AOH 3952 G	240	260	94	TR 280X4	7.77	8	G 1/8	HM 3048	MS 3048-MS 3052		HMV 48E	TE 1/8BSP 01	HM 3056		HMV 56E	BH 100-0.7 / BH 160 / BH 160-4.8	23952K
AH 252	AOH 252	240	260	105	TR 280X4	8.83	8	G 1/8	HM 3048	MS 3048-MS 3052		HMV 48E	TE 1/8BSP 01	HM 3056		HMV 56E	BH 100-0.7 / BH 160 / BH 160-4.8	23952K
AH 3052	AOH 3052	240	260	128	TR 280X4	9.70	8	G 1/8	HM 3048	MS 3048-MS 3052		HMV 48E	TE 1/8BSP 01	HM 3056		HMV 56E	BH 100-0.7 / BH 160 / BH 160-4.8	23052K C3052K
AH 2252	AOH 2252	240	260	155	TR 290X4	14.00	9	G 1/8	HM 3048	MS 3048-MS 3052		HMV 48E	TE 1/8BSP 01	HM 58T		HMV 58E	BH 100-0.7 / BH 160 / BH 160-4.8	22252K
AH 2252 G	AOH 2252 G	240	260	155	TR 280X4	14.00	9	G 1/8	HM 3048	MS 3048-MS 3052		HMV 48E	TE 1/8BSP 01	HM 3056		HMV 56E	BH 100-0.7 / BH 160 / BH 160-4.8	22252K
AH 24052	AOH 24052	240	260	162	TR 270X4	10.43	6.5	G 1/8	HM 3148	MS 3144-MS 3148		HMV 48E	TE 1/8BSP 01	HM 54T		HMV 54E	BH 100-0.7 / BH 160 / BH 160-4.8	24052K30
AH 24052 G	AOH 24052 G	240	260	162	TR 280X4	10.43	7.5	G 1/8	HM 3148	MS 3144-MS 3148		HMV 48E	TE 1/8BSP 01	HM 3056		HMV 56E	BH 100-0.7 / BH 160 / BH 160-4.8	24052K30
AH 3152	AOH 3152	240	260	172	TR 290X4	14.39	9	G 1/8	HM 3148	MS 3144-MS 3148		HMV 48E	TE 1/8BSP 01	HM 58T		HMV 58E	BH 100-0.7 / BH 160 / BH 160-4.8	23152K
AH 3152 G	AOH 3152 G	240	260	172	TR 280X4	13.60	9	G 1/8	HM 3148	MS 3144-MS 3148		HMV 48E	TE 1/8BSP 01	HM 3056		HMV 56E	BH 100-0.7 / BH 160 / BH 160-4.8	23152K C3152K
AH 24152	AOH 24152	240	260	202	TR 280X4	13.80	8.5	G 1/4	HM 3148	MS 3144-MS 3148		HMV 48E	TE 1/4BSP 01	HM 3056		HMV 56E	BH 100-0.7 / BH 160 / BH 160-4.8	24152K30
AH 2352	AOH 2352	240	260	205	TR 290X4	17.60	9	G 1/8	HM 3148	MS 3144-MS 3148		HMV 48E	TE 1/8BSP 01	HM 58T		HMV 58E	BH 100-0.7 / BH 160 / BH 160-4.8	22352K 32352K
AH 2352 G	AOH 2352 G	240	260	205	TR 280X4	17.60	9	G 1/8	HM 3148	MS 3144-MS 3148		HMV 48E	TE 1/8BSP 01	HM 3056		HMV 56E	BH 100-0.7 / BH 160 / BH 160-4.8	22352K 32352K
AH 3956	AOH 3956	260	280	94	TR 295X4	8.02	8	G 1/8	HM 3052	MS 3048-MS 3052		HMV 52E	TE 1/8BSP 01	HMLL 59T			BH 100-0.7 / BH 160 / BH 160-4.8	23956K
AH 3956 G	AOH 3956 G	260	280	94	TR 300X4	8.30	8	G 1/8	HM 3052	MS 3048-MS 3052		HMV 52E	TE 1/8BSP 01	HM 3060		HMV 60E	BH 100-0.7 / BH 160 / BH 160-4.8	23956K
AH 256	AOH 256	260	280	105	TR 300X4	9.52	8	G 1/8	HM 3052	MS 3048-MS 3052		HMV 52E	TE 1/8BSP 01	HM 3060		HMV 60E	BH 100-0.7 / BH 160 / BH 160-4.8	23956K
AH 3056	AOH 3056	260	280	131	TR 300X4	10.61	8	G 1/8	HM 3052	MS 3048-MS 3052		HMV 52E	TE 1/8BSP 01	HM 3060		HMV 60E	BH 100-0.7 / BH 160 / BH 160-4.8	23056K C3056K
AH 2256	AOH 2256	260	280	155	TR 310X5	15.20	9	G 1/8	HM 3052	MS 3048-MS 3052		HMV 52E	TE 1/8BSP 01	HM 62T		HNV 62E	BH 100-0.7 / BH 160 / BH 160-4.8	22256K
AH 2256 G	AOH 2256 G	260	280	155	TR 300X4	15.20	9	G 1/8	HM 3052	MS 3048-MS 3052		HMV 52E	TE 1/8BSP 01	HM 3160		HMV 60E	BH 100-0.7 / BH 160 / BH 160-4.8	22256K
AH 24056	AOH 24056	260	280	162	TR 290X4	11.40	6.5	G 1/8	HM 3152	MS 3152-MS 3156		HMV 52E	TE 1/8BSP 01	HM 58T		HMV 58E	BH 100-0.7 / BH 160 / BH 160-4.8	24056K30
AH 24056 G	AOH 24056 G	260	280	162	TR 300X4	11.40	7.5	G 1/8	HM 3152	MS 3152-MS 3156		HMV 52E	TE 1/8BSP 01	HM 3160		HMV 60E	BH 100-0.7 / BH 160 / BH 160-4.8	24056K30
AH 3156	AOH 3156	260	280	175	TR 310X5	15.80	9	G 1/8	HM 3152	MS 3152-MS 3156		HMV 52E	TE 1/8BSP 01	HM 62T		HMV 62E	BH 100-0.7 / BH 160 / BH 160-4.8	23156K
AH 3156 G	AOH 3156 G	260	280	175	TR 300X4	15.80	9	G 1/8	HM 3152	MS 3152-MS 3156		HMV 52E	TE 1/8BSP 01	HM 3160		HMV 60E	BH 100-0.7 / BH 160 / BH 160-4.8	23156K C3156K
AH 24156	AOH 24156	260	280	202	TR 300X4	15.20	8.7	G 1/4	HM 3152	MS 3152-MS 3156		HMV 52E	TE 1/4BSP 01	HM 3160		HMV 60E	BH 100-0.7 / BH 160 / BH 160-4.8	24156K30
AH 2356	AOH 2356	260	280	212	TR 310X5	19.80	9	G 1/8	HM 3152	MS 3152-MS 3156		HMV 52E	TE 1/8BSP 01	HM 62T		HMV 62E	BH 100-0.7 / BH 160 / BH 160-4.8	22356K 23256K
AH 2356 G	AOH 2356 G	260	280	212	TR 300X4	19.80	9	G 1/8	HM 3152	MS 3152-MS 3156		HMV 52E	TE 1/8BSP 01	HM 3160		HMV 60E	BH 100-0.7 / BH 160 / BH 160-4.8	22356K 23256K
AH 3960	AOH 3960	280	300	112	TR 315X5	10.50	8	G 1/8	HM 3056	MS 3056		HMV 56E	TE 1/8BSP 01	HMLL 63T			BH 100-0.7 / BH 160 / BH 160-4.8	23960K
AH 3960 G	AOH 3960 G	280	300	112	TR 320X5	10.80	8	G 1/8	HM 3056	MS 3056		HMV 56E	TE 1/8BSP 01	HM 3064		HMV 64E	BH 100-0.7 / BH 160 / BH 160-4.8	23960K
AH 3060	AOH 3060	280	300	145	TR 320X5	14.40	9	G 1/8	HM 3056	MS 3056		HMV 56E	TE 1/8BSP 01	HM 3064		HMV 64E	BH 100-0.7 / BH 160 / BH 160-4.8	23060K C3060K
AH 2260	AOH 2260	280	300	170	TR 330X5	18.10	9	G 1/8	HM 3056	MS 3056		HMV 56E	TE 1/8BSP 01	HM 66T		HMV 66E	BH 100-0.7 / BH 160 / BH 160-4.8	22260K
AH 2260 G	AOH 2260 G	280	300	170	TR 320X5	18.10	9	G 1/8	HM 3056	MS 3056		HMV 56E	TE 1/8BSP 01	HM 3164		HMV 64E	BH 100-0.7 / BH 160 / BH 160-4.8	22260K
AH 24060	AOH 24060	280	300	184	TR 310X5	14.00	6.2	G 1/8	HM 3156	MS 3152-MS 3156		HMV 56E	TE 1/8BSP 01	HM 62T		HMV 62E	BH 100-0.7 / BH 160 / BH 160-4.8	24060K30
AH 24060 G	AOH 24060 G	280	300	184	TR 320X5	14.00	8	G 1/8	HM 3156	MS 3152-MS 3156		HMV 56E	TE 1/8BSP 01	HM 3164		HMV 64E	BH 100-0.7 / BH 160 / BH 160-4.8	24060K30 C4060K30
AH 3160	AOH 3160	280	300	192	TR 330X5	19.00	9	G 1/8	HM 3156	MS 3152-MS 3156		HMV 56E	TE 1/8BSP 01	HM 66T		HMV 66E	BH 100-0.7 / BH 160 / BH 160-4.8	23160K
AH 3160 G	AOH 3160 G	280	300	192	TR 320X5	19.00	9	G 1/8	HM 3156	MS 3152-MS 3156		HMV 56E	TE 1/8BSP 01	HM 3164		HMV 64E	BH 100-0.7 / BH 160 / BH 160-4.8	23160K C3160K
AH 24160	AOH 24160	280	300	224	TR 320X5	18.20	8.7	G 1/4	HM 3156	MS 3152-MS 3156		HMV 56E	TE 1/4BSP 01	HM 3164		HMV 64E	BH 100-0.7 / BH 160 / BH 160-4.8	24160K30
AH 3260	AOH 3260	280	300	228	TR 330X5	23.20	9	G 1/8	HM 3156	MS 3152-MS 3156		HMV 56E	TE 1/8BSP 01	HM 66T		HMV 66E	BH 100-0.7 / BH 160 / BH 160-4.8	23260K 22360K
AH 3260 G	AOH 3260 G	280	300	228	TR 320X5	23.20	9	G 1/8	HM 3156	MS 3152-MS 3156		HMV 56E	TE 1/8BSP 01	HM 3164		HMV 64E	BH 100-0.7 / BH 160 / BH 160-4.8	23260K 22360K



WITHDRAWAL SLEEVES
AH, AHX, AOH, AOHX



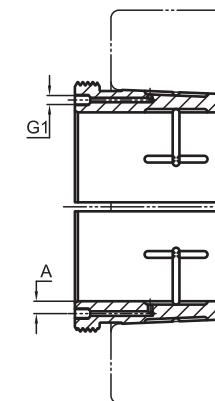
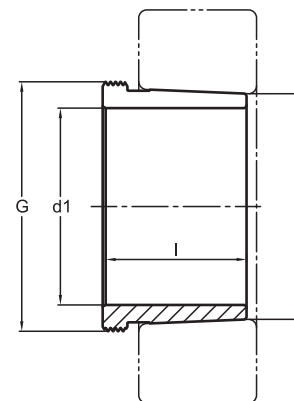
WITHDRAWAL SLEEVES AH, AHX

HYDRAULIC WITHDRAWAL SLEEVES
AOH, AOHX

Part Number	Hydraulic Part Number	d1 (mm)	d (mm)	l (mm)	G*	Weight (Kg)	HYDRAULIC		NUT + MOUNTING LOCK		ASSEMBLY TOOL		DISASSEMBLY TOOL			Hydraulic Pump	Bearings	
							A	G1	Assembly Nut	Lockwasher / Locking Devices	Hook Spanner	Assembly Hydraulic Nut	Extension Tube	Withdrawal Nut	Withdrawal Hook Spanner			Withdrawal Hydraulic Nut
AH 3964	AOH 3964	300	320	112	TR 335X5	11.20	8	G 1/8	HM 3060	MS 3060		HMV 60E	TE 1/8BSP 01	HMLL 67T		BH 100-0.7 / BH 160 / BH 160-4.8	23964K	
AH 3964 G	AOH 3964 G	300	320	112	TR 340X5	11.50	8.7	G 1/4	HM 3060	MS 3060		HMV 60E	TE 1/4BSP 01	HM 3068		HMV 68E	BH 100-0.7 / BH 160 / BH 160-4.8	23964K
AH 3064	AOH 3064	300	320	149	TR 345X5	14.80	9	G 1/4	HM 3060	MS 3060		HMV 60E	TE 1/4BSP 01	HML 69T		HMV 69E	BH 100-0.7 / BH 160 / BH 160-4.8	23064K
AH 3064 G	AOH 3064 G	300	320	149	TR 340X5	14.80	9	G 1/4	HM 3060	MS 3060		HMV 60E	TE 1/4BSP 01	HM 3068		HMV 68E	BH 100-0.7 / BH 160 / BH 160-4.8	23064K
AH 2264	AOH 2264	300	320	180	TR 350X5	20.20	9	G 1/4	HM 3060	MS 3060		HMV 60E	TE 1/4BSP 01	HM 70T		HMV 70E	BH 100-0.7 / BH 160 / BH 160-4.8	22264K
AH 2264 G	AOH 2264 G	300	320	180	TR 340X5	20.20	9	G 1/4	HM 3060	MS 3060		HMV 60E	TE 1/4BSP 01	HM 3168		HMV 68E	BH 100-0.7 / BH 160 / BH 160-4.8	22264K
AH 24064	AOH 24064	300	320	184	TR 330X5	14.80	6.2	G 1/8	HM 3160	MS 3160		HMV 60E	TE 1/8BSP 01	HM 66T		HMV 66E	BH 100-0.7 / BH 160 / BH 160-4.8	24064K30
AH 24064 G	AOH 24064 G	300	320	184	TR 340X5	15.80	8	G 1/8	HM 3160	MS 3160		HMV 60E	TE 1/8BSP 01	HM 3168		HMV 68E	BH 100-0.7 / BH 160 / BH 160-4.8	24064K30
AH 3164	AOH 3164	300	320	209	TR 350X5	22.60	9	G 1/4	HM 3160	MS 3160		HMV 60E	TE 1/4BSP 01	HM 70T		HMV 70E	BH 100-0.7 / BH 160 / BH 160-4.8	23164K
AH 3164 G	AOH 3164 G	300	320	209	TR 340X5	22.60	9	G 1/4	HM 3160	MS 3160		HMV 60E	TE 1/4BSP 01	HM 3168		HMV 68E	BH 100-0.7 / BH 160 / BH 160-4.8	23164K
AH 24164	AOH 24164	300	320	242	TR 340X5	21.20	9	G 1/4	HM 3160	MS 3160		HMV 60E	TE 1/4BSP 01	HM 3168		HMV 68E	BH 100-0.7 / BH 160 / BH 160-4.8	24164K30
AH 3264	AOH 3264	300	320	246	TR 350X5	27.40	9	G 1/4	HM 3160	MS 3160		HMV 60E	TE 1/4BSP 01	HM 70T		HMV 70E	BH 100-0.7 / BH 160 / BH 160-4.8	23264K
AH 3264 G	AOH 3264 G	300	320	246	TR 340X5	26.00	9	G 1/4	HM 3160	MS 3160		HMV 60E	TE 1/4BSP 01	HM 3168		HMV 68E	BH 100-0.7 / BH 160 / BH 160-4.8	23264K
AH 3968	AOH 3968	320	340	112	TR 355X5	11.90	8	G 1/8	HM 3064	MS 3064-MS 3068		HMV 64E	TE 1/8BSP 01	HMLL 71T			BH 100-0.7 / BH 160 / BH 160-4.8	23968K
AH 3968 G	AOH 3968 G	320	340	112	TR 360X5	12.30	8.7	G 1/4	HM 3064	MS 3064-MS 3068		HMV 64E	TE 1/4BSP 01	HM 3072		HMV 72E	BH 100-0.7 / BH 160 / BH 160-4.8	23968K
AH 3068	AOH 3068	320	340	162	TR 365X5	17.30	9	G 1/4	HM 3064	MS 3064-MS 3068		HMV 64E	TE 1/4BSP 01	HML 73T		HMV 73E	BH 100-0.7 / BH 160 / BH 160-4.8	23068K
AH 3068 G	AOH 3068 G	320	340	162	TR 360X5	17.30	9	G 1/4	HM 3064	MS 3064-MS 3068		HMV 64E	TE 1/4BSP 01	HM 3072		HMV 72E	BH 100-0.7 / BH 160 / BH 160-4.8	23068K
AH 24068	AOH 24068	320	340	206	TR 360X5	19.20	8	G 1/8	HM 3164	MS 3164		HMV 64E	TE 1/8BSP 01	HM 3172		HMV 72E	BH 100-0.7 / BH 160 / BH 160-4.8	24068K30
AH 3168	AOH 3168	320	340	225	TR 370X5	26.20	9	G 1/4	HM 3164	MS 3164		HMV 64E	TE 1/4BSP 01	HM 74T		HMV 74E	BH 100-0.7 / BH 160 / BH 160-4.8	23168K
AH 3168 G	AOH 3168 G	320	340	225	TR 360X5	24.40	9	G 1/4	HM 3064	MS 3064-MS 3068		HMV 64E	TE 1/4BSP 01	HM 3172		HMV 72E	BH 100-0.7 / BH 160 / BH 160-4.8	23168K
AH 3268	AOH 3268	320	340	264	TR 370X5	31.80	9	G 1/4	HM 3164	MS 3164		HMV 64E	TE 1/4BSP 01	HM 74T		HMV 74E	BH 100-0.7 / BH 160 / BH 160-4.8	23268K
AH 3268 G	AOH 3268 G	320	340	264	TR 360X5	29.80	9	G 1/4	HM 3164	MS 3164		HMV 64E	TE 1/4BSP 01	HM 3172		HMV 72E	BH 100-0.7 / BH 160 / BH 160-4.8	23268K
AH 24168	AOH 24168	320	340	269	TR 360X5	25.40	9	G 1/4	HM 3164	MS 3164		HMV 64E	TE 1/4BSP 01	HM 3172		HMV 72E	BH 100-0.7 / BH 160 / BH 160-4.8	24168K30
AH 3972	AOH 3972	340	360	112	TR 375X5	12.60	8	G 1/8	HM 3068			HMV 68E	TE 1/8BSP 01	HMLL 75T			BH 100-0.7 / BH 160 / BH 160-4.8	23972K
AH 3972 G	AOH 3972 G	340	360	112	TR 380X5	13.00	8.7	G 1/4	HM 3068	MS 3064-MS 3068		HMV 68E	TE 1/4BSP 01	HM 3076		HMV 76E	BH 100-0.7 / BH 160 / BH 160-4.8	23972K
AH 3072	AOH 3072	340	360	167	TR 385X5	19.00	9	G 1/4	HM 3068	MS 3064-MS 3068		HMV 68E	TE 1/4BSP 01	HML 77T		HMV 77E	BH 100-0.7 / BH 160 / BH 160-4.8	23072K
AH 3072 G	AOH 3072 G	340	360	167	TR 380X5	18.20	9	G 1/4	HM 3068	MS 3064-MS 3068		HMV 68E	TE 1/4BSP 01	HM 3076		HMV 76E	BH 100-0.7 / BH 160 / BH 160-4.8	23072K
AH 24072	AOH 24072	340	360	206	TR 380X5	22.70	8	G 1/8	HM 3168	MS 3168-MS 3172		HMV 68E	TE 1/8BSP 01	HM 3176		HMV 76E	BH 100-0.7 / BH 160 / BH 160-4.8	24072K30
AH 3172	AOH 3172	340	360	229	TR 400X5	29.60	9	G 1/4	HM 3168	MS 3168-MS 3172		HMV 68E	TE 1/4BSP 01	HM 3180		HMV 80E	BH 100-0.7 / BH 160 / BH 160-4.8	23172K
AH 3172 G	AOH 3172 G	340	360	229	TR 380X5	29.60	9	G 1/4	HM 3068	MS 3064-MS 3068		HMV 68E	TE 1/4BSP 01	HM 3176		HMV 76E	BH 100-0.7 / BH 160 / BH 160-4.8	23172K
AH 24172	AOH 24172	340	360	269	TR 380X5	27.00	9	G 1/4	HM 3168	MS 3168-MS 3172		HMV 68E	TE 1/4BSP 01	HM 3176		HMV 76E	BH 100-0.7 / BH 160 / BH 160-4.8	24172K30
AH 3272	AOH 3272	340	360	274	TR 400X5	41.50	9	G 1/4	HM 3168	MS 3168-MS 3172		HMV 68E	TE 1/4BSP 01	HM 3180		HMV 80E	BH 100-0.7 / BH 160 / BH 160-4.8	23272K
AH 3272 G	AOH 3272 G	340	360	274	TR 380X5	41.50	9	G 1/4	HM 3168	MS 3168-MS 3172		HMV 68E	TE 1/4BSP 01	HM 3176		HMV 76E	BH 100-0.7 / BH 160 / BH 160-4.8	23272K
AH 3976	AOH 3976	360	380	130	TR 395X5	15.40	8	G 1/8				HMV 72E	TE 1/8BSP 01	HMLL 79T			BH 100-0.7 / BH 160 / BH 160-4.8	23976K
AH 3976 G	AOH 3976 G	360	380	130	TR 400X5	16.10	9	G 1/4	HM 3072	MS 3072		HMV 72E	TE 1/4BSP 01	HM 3080		HMV 80E	BH 100-0.7 / BH 160 / BH 160-4.8	23976K
AH 3076	AOH 3076	360	380	170	TR 410X5	21.40	9	G 1/4	HM 3072	MS 3072		HMV 72E	TE 1/4BSP 01	HML 82T		HMV 82E	BH 100-0.7 / BH 160 / BH 160-4.8	23076K
AH 3076 G	AOH 3076 G	360	380	170	TR 400X5	21.40	9	G 1/4	HM 3072	MS 3072		HMV 72E	TE 1/4BSP 01	HM 3080		HMV 80E	BH 100-0.7 / BH 160 / BH 160-4.8	23076K



WITHDRAWAL SLEEVES
AH, AHX, AOH, AOHX



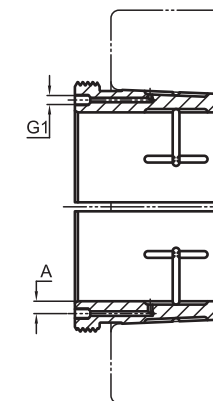
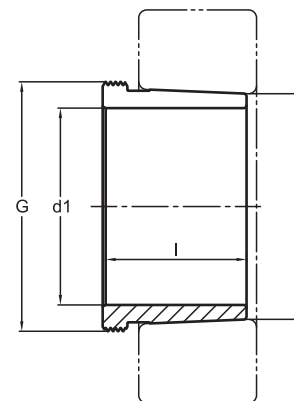
WITHDRAWAL SLEEVES AH, AHX

HYDRAULIC WITHDRAWAL SLEEVES
AOH, AOHX

Part Number	Hydraulic Part Number	d1 (mm)	d (mm)	l (mm)	G*	Weight (Kg)	HYDRAULIC		NUT + MOUNTING LOCK		ASSEMBLY TOOL		DISASSEMBLY TOOL			Hydraulic Pump	Bearings
							A	G1	Assembly Nut	Lockwasher / Locking Devices	Hook Spanner	Assembly Hydraulic Nut	Extension Tube	Withdrawal Nut	Withdrawal Hook Spanner		
AH 24076	AOH 24076	360	380	208	TR 400X5	21.40	8	G 1/8	HM 3172	MS 3168-MS 3172	HMV 72E	TE 1/8BSP 01	HM 3180	HMV 80E	BH 100-0.7 / BH 160 / BH 160-4.8	24076K30	
AH 3176	AOH 3176	360	380	232	TR 420X5	32.20	9	G 1/4	HM 3172	MS 3168-MS 3172	HMV 72E	TE 1/4BSP 01	HM 3184	HMV 84E	BH 100-0.7 / BH 160 / BH 160-4.8	23176K	
AH 3176 G	AOH 3176 G	360	380	232	TR 400X5	35.70	9	G 1/4	HM 3172	MS 3168-MS 3172	HMV 72E	TE 1/4BSP 01	HM 3180	HMV 80E	BH 100-0.7 / BH 160 / BH 160-4.8	23176K C3176K	
AH 24176	AOH 24176	360	380	271	TR 400X5	28.80	9	G 1/4	HM 3172	MS 3168-MS 3172	HMV 72E	TE 1/4BSP 01	HM 3180	HMV 80E	BH 100-0.7 / BH 160 / BH 160-4.8	24176K30	
AH 3276	AOH 3276	360	380	284	TR 420X5	45.60	9	G 1/4	HM 3172	MS 3168-MS 3172	HMV 72E	TE 1/4BSP 01	HM 3184	HMV 84E	BH 100-0.7 / BH 160 / BH 160-4.8	23276K 22376K	
AH 3276 G	AOH 3276 G	360	380	284	TR 400X5	45.60	9	G 1/4	HM 3172	MS 3168-MS 3172	HMV 72E	TE 1/4BSP 01	HM 3180	HMV 80E	BH 100-0.7 / BH 160 / BH 160-4.8	23276K 22376K	
AH 3980	AOH 3980	380	400	130	TR 415X5	16.60	8	G 1/8	HM 3076	MS 3076-MS 3080	HMV 76E	TE 1/8BSP 01	HMLL 83T		BH 100-0.7 / BH 160 / BH 160-4.8	23980K	
AH 3980 G	AOH 3980 G	380	400	130	TR 420X5	17.00	9	G 1/4	HM 3076	MS 3076-MS 3080	HMV 76E	TE 1/4BSP 01	HM 3084	HMV 84E	BH 100-0.7 / BH 160 / BH 160-4.8	23980K	
AH 3080	AOH 3080	380	400	183	TR 430X5	27.30	9	G 1/4	HM 3076	MS 3076-MS 3080	HMV 76E	TE 1/4BSP 01	HML 86T	HMV 86E	BH 100-0.7 / BH 160 / BH 160-4.8	23080K	
AH 3080 G	AOH 3080 G	380	400	183	TR 420X5	27.30	9	G 1/4	HM 3076	MS 3076-MS 3080	HMV 76E	TE 1/4BSP 01	HM 3084	HMV 84E	BH 100-0.7 / BH 160 / BH 160-4.8	23080K C3080K	
AH 24080	AOH 24080	380	400	228	TR 420X5	27.10	8.7	G 1/4	HM 3176	MS 3176	HMV 76E	TE 1/4BSP 01	HM 3184	HMV 84E	BH 100-0.7 / BH 160 / BH 160-4.8	24080K30	
AH 3180	AOH 3180	380	400	240	TR 440X5	35.40	9	G 1/4	HM 3176	MS 3176	HMV 76E	TE 1/4BSP 01	HM 3188	HMV 88E	BH 100-0.7 / BH 160 / BH 160-4.8	23180K	
AH 3180 G	AOH 3180 G	380	400	240	TR 420X5	32.00	9	G 1/4	HM 3176	MS 3176	HMV 76E	TE 1/4BSP 01	HM 3184	HMV 84E	BH 100-0.7 / BH 160 / BH 160-4.8	23180K C3180K	
AH 24180	AOH 24180	380	400	278	TR 420X5	34.40	9	G 1/4	HM 3176	MS 3176	HMV 76E	TE 1/4BSP 01	HM 3184	HMV 84E	BH 100-0.7 / BH 160 / BH 160-4.8	24180K30	
AH 3280	AOH 3280	380	400	302	TR 440X5	51.70	9	G 1/4	HM 3176	MS 3176	HMV 76E	TE 1/4BSP 01	HM 3188	HMV 88E	BH 100-0.7 / BH 160 / BH 160-4.8	22380K 23280K	
AH 3280 G	AOH 3280 G	380	400	302	TR 420X5	51.70	9	G 1/4	HM 3176	MS 3176	HMV 76E	TE 1/4BSP 01	HM 3184	HMV 84E	BH 100-0.7 / BH 160 / BH 160-4.8	22380K 23280K	
AH 3984	AOH 3984	400	420	130	TR 435X5	17.50	8	G 1/8	HM 3080	MS 3076-MS 3080	HMV 80E	TE 1/8BSP 01	HMLL 87T		BH 100-0.7 / BH 160 / BH 160-4.8	23984K	
AH 3984 G	AOH 3984 G	400	420	130	TR 440X5	17.80	9	G 1/4	HM 3080	MS 3076-MS 3080	HMV 80E	TE 1/4BSP 01	HM 3088	HMV 88E	BH 100-0.7 / BH 160 / BH 160-4.8	23984K	
AH 3084	AOH 3084	400	420	186	TR 450X5	26.00	9	G 1/4	HM 3080	MS 3076-MS 3080	HMV 80E	TE 1/4BSP 01	HML 90T	HMV 90E	BH 100-0.7 / BH 160 / BH 160-4.8	23084K	
AH 3084 G	AOH 3084 G	400	420	186	TR 440X5	29.00	9	G 1/4	HM 3080	MS 3076-MS 3080	HMV 80E	TE 1/4BSP 01	HM 3088	HMV 88E	BH 100-0.7 / BH 160 / BH 160-4.8	23084K C3084K	
AH 24084	AOH 24084	400	420	230	TR 440X5	27.40	8.7	G 1/4	HM 3180	MS 3180-MS 3184	HMV 80E	TE 1/4BSP 01	HM 3188	HMV 88E	BH 100-0.7 / BH 160 / BH 160-4.8	24084K30	
AH 3184	AOH 3184	400	420	266	TR 460X5	46.50	9	G 1/4	HM 3180	MS 3180-MS 3184	HMV 80E	TE 1/4BSP 01	HM 3192	HMV 92E	BH 100-0.7 / BH 160 / BH 160-4.8	23184K	
AH 3184 G	AOH 3184 G	400	420	266	TR 440X5	37.60	9	G 1/4	HM 3180	MS 3180-MS 3184	HMV 80E	TE 1/4BSP 01	HM 3188	HMV 88E	BH 100-0.7 / BH 160 / BH 160-4.8	23184K C3184K	
AH 24184	AOH 24184	400	420	310	TR 440X5	40.30	9	G 1/4	HM 3180	MS 3180-MS 3184	HMV 80E	TE 1/4BSP 01	HM 3188	HMV 88E	BH 100-0.7 / BH 160 / BH 160-4.8	24184K30	
AH 3284	AOH 3284	400	420	321	TR 460X5	58.90	9	G 1/4	HM 3180	MS 3180-MS 3184	HMV 80E	TE 1/4BSP 01	HM 3192	HMV 92E	BH 100-0.7 / BH 160 / BH 160-4.8	23284K	
AH 3284 G	AOH 3284 G	400	420	321	TR 440X5	58.90	9	G 1/4	HM 3180	MS 3180-MS 3184	HMV 80E	TE 1/4BSP 01	HM 3188	HMV 88E	BH 100-0.7 / BH 160 / BH 160-4.8	23284K	
AH 3988	AOH 3988	420	440	145	TR 460X5	21.50	9	G 1/4	HM 3084	MS 3084	HMV 84E	TE 1/4BSP 01	HM 3092	HMV 92E	BH 100-0.7 / BH 160 / BH 160-4.8	23988K	
AHX 3088	AOHX 3088	420	440	194	TR 470X5	28.60	9	G 1/4	HM 3084	MS 3084	HMV 84E	TE 1/4BSP 01	HML 94T	HMV 94E	BH 100-0.7 / BH 160 / BH 160-4.8	23088K	
AHX 3088 G	AOHX 3088 G	420	440	194	TR 460X5	27.60	9	G 1/4	HM 3084	MS 3084	HMV 84E	TE 1/4BSP 01	HM 3092	HMV 92E	BH 100-0.7 / BH 160 / BH 160-4.8	23088K C3088K	
AH 24088	AOH 24088	420	440	242	TR 460X5	29.60	8.7	G 1/4	HM 3184	MS 3180-MS 3184	HMV 84E	TE 1/4BSP 01	HM 3192	HMV 92E	BH 100-0.7 / BH 160 / BH 160-4.8	24088K30	
AHX 3188	AOHX 3188	420	440	270	TR 480X5	49.80	9	G 1/4	HM 3184	MS 3180-MS 3184	HMV 88E	TE 1/4BSP 01	HM 3196	HMV 96E	BH 100-0.7 / BH 160 / BH 160-4.8	23188K	
AHX 3188 G	AOHX 3188 G	420	440	270	TR 460X5	49.80	9	G 1/4	HM 3184	MS 3180-MS 3184	HMV 84E	TE 1/4BSP 01	HM 3192	HMV 92E	BH 100-0.7 / BH 160 / BH 160-4.8	23188K C3188K	
AH 24188	AOH 24188	420	440	310	TR 460X5	42.30	9	G 1/4	HM 3184	MS 3180-MS 3184	HMV 84E	TE 1/4BSP 01	HM 3192	HMV 92E	BH 100-0.7 / BH 160 / BH 160-4.8	24188K30	
AHX 3288	AOHX 3288	420	440	330	TR 480X5	63.80	9	G 1/4	HM 3184	MS 3180-MS 3184	HMV 84E	TE 1/4BSP 01	HM 3196	HMV 96E	BH 100-0.7 / BH 160 / BH 160-4.8	23288K	
AHX 3288 G	AOHX 3288 G	420	440	330	TR 460X5	63.80	9	G 1/4	HM 3184	MS 3180-MS 3184	HMV 84E	TE 1/4BSP 01	HM 3192	HMV 92E	BH 100-0.7 / BH 160 / BH 160-4.8	23288K	
AH 3992	AOH 3992	440	460	145	TR 480X5	22.50	9	G 1/4	HM 3088	MS 3088-MS 3092	HMV 88E	TE 1/4BSP 01	HM 3096	HMV 96E	BH 100-0.7 / BH 160 / BH 160-4.8	23992K	



WITHDRAWAL SLEEVES
AH, AHX, AOH, AOHX



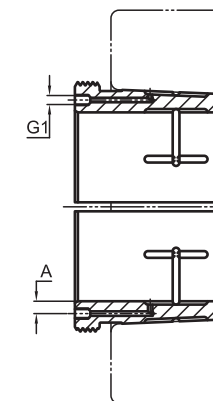
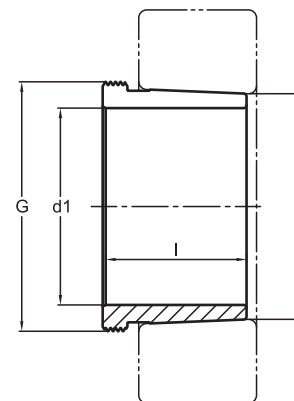
WITHDRAWAL SLEEVES AH, AHX

HYDRAULIC WITHDRAWAL SLEEVES
AOH, AOHX

Part Number	Hydraulic Part Number	d1 (mm)	d (mm)	l (mm)	G*	Weight (Kg)	HYDRAULIC		NUT + MOUNTING LOCK		ASSEMBLY TOOL		DISASSEMBLY TOOL			Hydraulic Pump	Bearings
							A	G1	Assembly Nut	Lockwasher / Locking Devices	Hook Spanner	Assembly Hydraulic Nut	Extension Tube	Withdrawal Nut	Withdrawal Hook Spanner		
AHX 3092	AOHX 3092	440	460	202	TR 490X5	31.60	9	G 1/4	HM 3088	MS 3088-MS 3092	HMV 88E	TE 1/4BSP 01	HML 98T	HMV 98E	BH 100-0.7 / BH 160 / BH 160-4.8	23092K	
AHX 3092 G	AOHX 3092 G	440	460	202	TR 480X5	35.20	9	G 1/4	HM 3088	MS 3088-MS 3092	HMV 88E	TE 1/4BSP 01	HM 3096	HMV 96E	BH 100-0.7 / BH 160 / BH 160-4.8	23092K C3092K	
AH 24092	AOH 24092	440	460	250	TR 480X5	34.70	9	G 1/4	HM 3188	MS 3188-MS 3192	HMV 88E	TE 1/4BSP 01	HM 3196	HMV 96E	BH 100-0.7 / BH 160 / BH 160-4.8	24092K30	
AHX 3192	AOHX 3192	440	460	285	TR 510X6	44.60	9	G 1/4	HM 3188	MS 3188-MS 3192	HMV 88E	TE 1/4BSP 01	HM 102T	HMV 102E	BH 100-0.7 / BH 160 / BH 160-4.8	23192K	
AHX 3192 G	AOHX 3192 G	440	460	285	TR 480X5	44.90	9	G 1/4	HM 3188	MS 3188-MS 3192	HMV 88E	TE 1/4BSP 01	HM 3196	HMV 96E	BH 100-0.7 / BH 160 / BH 160-4.8	23192K C3192K	
AH 24192	AOH 24192	440	460	332	TR 480X5	44.20	9	G 1/4	HM 3188	MS 3188-MS 3192	HMV 88E	TE 1/4BSP 01	HM 3196	HMV 96E	BH 100-0.7 / BH 160 / BH 160-4.8	24192K30 C4192K30	
AHX 3292	AOHX 3292	440	460	349	TR 510X6	74.50	9	G 1/4	HM 3188	MS 3188-MS 3192	HMV 88E	TE 1/4BSP 01	HM 102T	HMV 102E	BH 100-0.7 / BH 160 / BH 160-4.8	23292K	
AHX 3292 G	AOHX 3292 G	440	460	349	TR 480X5	74.50	9	G 1/4	HM 3188	MS 3188-MS 3192	HMV 88E	TE 1/4BSP 01	HM 3196	HMV 96E	BH 100-0.7 / BH 160 / BH 160-4.8	23292K	
AH 3996	AOH 3996	460	480	158	TR 500X5	26.00	9	G 1/4	HM 3092	MS 3088-MS 3092	HMV 92E	TE 1/4BSP 01	HM 30/500	HMV 100E	BH 100-0.7 / BH 160 / BH 160-4.8	23996K	
AHX 3096	AOHX 3096	460	480	205	TR 520X6	39.20	9	G 1/4	HM 3092	MS 3088-MS 3092	HMV 92E	TE 1/4BSP 01	HML 104T	HMV 104E	BH 100-0.7 / BH 160 / BH 160-4.8	23096K	
AHX 3096 G	AOHX 3096 G	460	480	205	TR 500X5	30.80	9	G 1/4	HM 3092	MS 3088-MS 3092	HMV 92E	TE 1/4BSP 01	HM 30/500	HMV 100E	BH 100-0.7 / BH 160 / BH 160-4.8	23096K C3096K	
AH 24096	AOH 24096	460	480	250	TR 500X5	33.60	9	G 1/4	HM 3192	MS 3188-MS 3192	HMV 92E	TE 1/4BSP 01	HM 31/500	HMV 100E	BH 100-0.7 / BH 160 / BH 160-4.8	24096K30	
AHX 3196	AOHX 3196	460	480	295	TR 530X6	63.10	9	G 1/4	HM 3192	MS 3188-MS 3192	HMV 92E	TE 1/4BSP 01	HM 31/530	HMV 106E	BH 100-0.7 / BH 160 / BH 160-4.8	23196K	
AHX 3196 G	AOHX 3196 G	460	480	295	TR 500X5	63.10	9	G 1/4	HM 3192	MS 3188-MS 3192	HMV 92E	TE 1/4BSP 01	HM 31/500	HMV 100E	BH 100-0.7 / BH 160 / BH 160-4.8	23196K C3196K	
AH 24196	AOH 24196	460	480	340	TR 500X5	52.70	9	G 1/4	HM 3192	MS 3188-MS 3192	HMV 92E	TE 1/4BSP 01	HM 31/500	HMV 100E	BH 100-0.7 / BH 160 / BH 160-4.8	24196K30	
AHX 3296	AOHX 3296	460	480	364	TR 530X6	82.10	9	G 1/4	HM 3192	MS 3188-MS 3192	HMV 92E	TE 1/4BSP 01	HM 31/530	HMV 106E	BH 100-0.7 / BH 160 / BH 160-4.8	23296K	
AHX 3296 G	AOHX 3296 G	460	480	364	TR 500X5	82.10	9	G 1/4	HM 3192	MS 3188-MS 3192	HMV 92E	TE 1/4BSP 01	HM 31/500	HMV 100E	BH 100-0.7 / BH 160 / BH 160-4.8	23296K	
AH 39/500	AOH 39/500	480	500	162	TR 520X6	28.00	9	G 1/8	HM 3096	MS 3096-MS30/500	HMV 96E	TE 1/8BSP 01	HML 104T	HMV 104E	BH 100-0.7 / BH 160 / BH 160-4.8	239/500K	
AH 39/500 G	AOH 39/500 G	480	500	162	TR 530X6	29.80	9	G 1/4	HM 3096	MS 3096-MS30/500	HMV 96E	TE 1/4BSP 01	HM 30/530	HMV 106E	BH 100-0.7 / BH 160 / BH 160-4.8	239/500K	
AHX 30/500	AOHX 30/500	480	500	209	TR 540X6	42.50	9	G 1/4	HM 3096	MS 3096-MS30/500	HMV 96E	TE 1/4BSP 01	HML 108T	HMV 108E	BH 100-0.7 / BH 160 / BH 160-4.8	230/500K	
AHX 30/500 G	AOHX 30/500 G	480	500	209	TR 530X6	42.50	9	G 1/4	HM 3096	MS 3096-MS30/500	HMV 96E	TE 1/4BSP 01	HM 30/530	HMV 106E	BH 100-0.7 / BH 160 / BH 160-4.8	230/500K C30/500K	
AH 240/500	AOH 240/500	480	500	253	TR 530X6	35.40	8.5	G 1/4	HM 3196	MS 3196	HMV 96E	TE 1/4BSP 01	HM 31/530	HMV 106E	BH 160 / BH 160-4.8	240/500K30	
AHX 31/500	AOHX 31/500	480	500	313	TR 550X6	70.90	9	G 1/4	HM 3196	MS 3196	HMV 96E	TE 1/4BSP 01	HM 110T	HMV 110E	BH 100-0.7 / BH 160 / BH 160-4.8	231/500K	
AHX 31/500 G	AOHX 31/500 G	480	500	313	TR 530X6	70.90	9	G 1/4	HM 3196	MS 3196	HMV 96E	TE 1/4BSP 01	HM 31/530	HMV 106E	BH 100-0.7 / BH 160 / BH 160-4.8	231/500K C31/500K	
AH 241/500	AOH 241/500	480	500	360	TR 530X6	55.00	9	G 1/4	HM 3196	MS 3196	HMV 96E	TE 1/4BSP 01	HM 31/530	HMV 106E	BH 160 / BH 160-4.8	241/500K30 C41/500K30	
AHX 32/500	AOHX 32/500	480	500	393	TR 560X6	94.60	9	G 1/4	HM 3196	MS 3196	HMV 96E	TE 1/4BSP 01	HM 31/560	HMV 112E	BH 100-0.7 / BH 160 / BH 160-4.8	232/500K	
AHX 32/500 G	AOHX 32/500 G	480	500	393	TR 530X6	94.60	9	G 1/4	HM 3196	MS 3196	HMV 96E	TE 1/4BSP 01	HM 31/530	HMV 106E	BH 100-0.7 / BH 160 / BH 160-4.8	232/500K	
AH 39/530	AOH 39/530	500	530	175	TR 550X6	43.40	12	G 1/4	HM 30/500	MS 3096-MS30/500	HMV 100E	TE 1/4BSP 01	HM 110T	HMV 110E	BH 100-0.7 / BH 160 / BH 160-4.8	239/530K	
AH 39/530 G	AOH 39/530 G	500	530	175	TR 560X6	45.60	12	G 1/4	HM 30/500	MS 3096-MS30/500	HMV 100E	TE 1/4BSP 01	HM 30/560	HMV 112E	BH 100-0.7 / BH 160 / BH 160-4.8	239/530K	
AH 30/530	AOH 30/530	500	530	230	TR 560X6	61.90	15	G 1/4	HM 30/500	MS 3096-MS30/500	HMV 100E	TE 1/4BSP 01	HM 30/560	HMV 112E	BH 100-0.7 / BH 160 / BH 160-4.8	230/530K C30/530K	
AH 240/530	AOH 240/530	500	530	285	TR 550X6	66.90	12	G 1/4	HM 31/500	MS 31/500	HMV 100E	TE 1/4BSP 01	HM 110T	HMV 110E	BH 160 / BH 160-4.8	240/530K30	
AH 240/530 G	AOH 240/530 G	500	530	285	TR 560X6	66.90	12	G 1/4	HM 31/500	MS 31/500	HMV 100E	TE 1/4BSP 01	HM 31/560	HMV 112E	BH 160 / BH 160-4.8	240/530K30	
AH 31/530	AOH 31/530	500	530	325	TR 560X6	93.40	15	G 1/4	HM 31/500	MS 31/500	HMV 100E	TE 1/4BSP 01	HM 31/560	HMV 112E	BH 100-0.7 / BH 160 / BH 160-4.8	231/530K C31/530K	
AH 241/530	AOH 241/530	500	530	370	TR 550X6	88.40	12	G 1/4	HM 31/500	MS 31/500	HMV 100E	TE 1/4BSP 01	HM 110T	HMV 110E	BH 160 / BH 160-4.8	241/530K30	
AH 241/530 G	AOH 241/530 G	500	530	370	TR 560X6	88.40	12	G 1/4	HM 31/500	MS 31/500	HMV 100E	TE 1/4BSP 01	HM 31/560	HMV 112E	BH 160 / BH 160-4.8	241/530K30	
AH 32/530	AOH 32/530	500	530	412	TR 580X6	133.00	15	G 1/4	HM 31/500	MS 31/500	HMV 100E	TE 1/4BSP 01	HM 116T	HMV 116E	BH 100-0.7 / BH 160 / BH 160-4.8	232/530K	
AH 32/530 G	AOH 32/530 G	500	530	412	TR 560X6	133.00	15	G 1/4	HM 31/500	MS 31/500	HMV 100E	TE 1/4BSP 01	HM 31/560	HMV 112E	BH 100-0.7 / BH 160 / BH 160-4.8	232/530K	



WITHDRAWAL SLEEVES
AH, AHX, AOH, AOHX



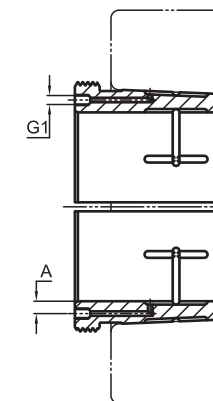
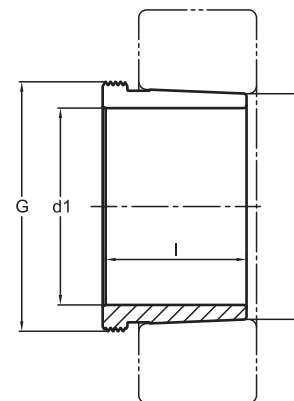
WITHDRAWAL SLEEVES AH, AHX

HYDRAULIC WITHDRAWAL SLEEVES
AOH, AOHX

Part Number	Hydraulic Part Number	d1 (mm)	d (mm)	l (mm)	G*	Weight (Kg)	HYDRAULIC		NUT + MOUNTING LOCK		ASSEMBLY TOOL		DISASSEMBLY TOOL			Hydraulic Pump	Bearings	
							A	G1	Assembly Nut	Lockwasher / Locking Devices	Hook Spanner	Assembly Hydraulic Nut	Extension Tube	Withdrawal Nut	Withdrawal Hook Spanner			Withdrawal Hydraulic Nut
AH 39/560	AOH 39/560	530	560	180	TR 580X6	47.40	12	G 1/4	HM 30/530	MS 30/530-600		HMV 106E	TE 1/4BSP 01	HM 116T		HMV 116E	BH 100-0.7 / BH 160 / BH 160-4.8	239/560K
AH 39/560 G	AOH 39/560 G	530	560	180	TR 600X6	52.30	12	G 1/4	HM 30/530	MS 30/530-600		HMV 106E	TE 1/4BSP 01	HM 30/600		HMV 120E	BH 100-0.7 / BH 160 / BH 160-4.8	239/560K
AH 30/560	AOH 30/560	530	560	240	TR 590X6	68.60	15	G 1/4	HM 30/530	MS 30/530-600		HMV 106E	TE 1/4BSP 01	HM 118T		HMV 106E	BH 100-0.7 / BH 160 / BH 160-4.8	230/560K
AHX 30/560	AOHX 30/560	530	560	240	TR 600X6	73.50	15	G 1/4	HM 30/530	MS 30/530-600		HMV 106E	TE 1/4BSP 01	HM 30/600		HMV 120E	BH 100-0.7 / BH 160 / BH 160-4.8	230/560K C30/560K
AH 240/560	AOH 240/560	530	560	296	TR 580X6	73.00	12	G 1/4	HM 31/530	MS 31/530		HMV 106E	TE 1/4BSP 01	HM 116T		HMV 116E	BH 160 / BH 160-4.8	240/560K30
AH 240/560 G	AOH 240/560 G	530	560	296	TR 600X6	73.00	12	G 1/4	HM 31/530	MS 31/530		HMV 106E	TE 1/4BSP 01	HM 31/600		HMV 120E	BH 160 / BH 160-4.8	240/560K30
AH 31/560	AOH 31/560	530	560	335	TR 600X6	102.00	15	G 1/4	HM 31/530	MS 31/530		HMV 106E	TE 1/4BSP 01	HM 31/600		HMV 120E	BH 100-0.7 / BH 160 / BH 160-4.8	231/560K C31/560K
AH 241/560	AOH 241/560	530	560	393	TR 580X6	92.00	12	G 1/4	HM 31/530	MS 31/530		HMV 106E	TE 1/4BSP 01	HM 116T		HMV 116E	BH 160 / BH 160-4.8	241/560K30
AH 241/560 G	AOH 241/560 G	530	560	393	TR 600X6	96.80	15	G 1/4	HM 31/530	MS 31/530		HMV 106E	TE 1/4BSP 01	HM 31/600		HMV 120E	BH 160 / BH 160-4.8	241/560K30 C41/560K30
AH 32/560	AOH 32/560	530	560	422	TR 610X6	145.00	15	G 1/4	HM 31/530	MS 31/530		HMV 106E	TE 1/4BSP 01	HM 122T			BH 100-0.7 / BH 160 / BH 160-4.8	232/560K
AHX 32/560	AOHX 32/560	530	560	422	TR 600X6	145.00	15	G 1/4	HM 31/530	MS 31/530		HMV 106E	TE 1/4BSP 01	HM 31/600		HMV 120E	BH 100-0.7 / BH 160 / BH 160-4.8	232/560K
AH 39/600	AOH 39/600	560	600	192	TR 625X6	61.60	15	G 1/4	HM 30/560	MS 30/560		HMV 112E	TE 1/4BSP 01	HMLL 125T		HMV 125E	BH 100-0.7 / BH 160 / BH 160-4.8	239/600K
AH 30/600	AOH 30/600	560	600	245	TR 630X6	75.40	15	G 1/4	HM 30/560	MS 30/560		HMV 112E	TE 1/4BSP 01	HM 30/630		HMV 126E	BH 100-0.7 / BH 160 / BH 160-4.8	230/600K
AH 240/600	AOH 240/600	560	600	310	TR 625X6	86.00	15	G 1/4	HM 31/560	MS 31/560-600		HMV 112E	TE 1/4BSP 01	HMLL 125T		HMV 125E	BH 160 / BH 160-4.8	240/600K30
AH 31/600	AOH 31/600	560	600	355	TR 630X6	118.00	15	G 1/4	HM 31/560	MS 31/560-600		HMV 112E	TE 1/4BSP 01	HM 31/630		HMV 126E	BH 100-0.7 / BH 160 / BH 160-4.8	231/600K
AH 241/600	AOH 241/600	560	600	413	TR 625X6	118.00	15	G 1/4	HM 31/560	MS 31/560		HMV 112E	TE 1/4BSP 01	HMLL 125T		HMV 125E	BH 160 / BH 160-4.8	241/600K30
AH 39/600 G	AOH 39/600 G	570	600	192	TR 630X6	57.00	15	G 1/4	HM 30/570	MS 30/530-600		HMV 114E	TE 1/4BSP 01	HM 30/630		HMV 126E	BH 100-0.7 / BH 160 / BH 160-4.8	239/600K
AHX 30/600	AOHX 30/600	570	600	245	TR 630X6	69.00	15	G 1/4	HM 30/570	MS 30/530-600		HMV 114E	TE 1/4BSP 01	HM 30/630		HMV 126E	BH 100-0.7 / BH 160 / BH 160-4.8	230/600K C30/600K
AHX 240/600	AOHX 240/600	570	600	310	TR 630X6	86.50	12	G 1/4	HM 31/570	MS 31/560-600		HMV 114E	TE 1/4BSP 01	HM 31/630		HMV 126E	BH 160 / BH 160-4.8	240/600K30
AHX 31/600	AOHX 31/600	570	600	355	TR 630X6	120.00	15	G 1/4	HM 31/570	MS 31/560-600		HMV 114E	TE 1/4BSP 01	HM 31/630		HMV 126E	BH 100-0.7 / BH 160 / BH 160-4.8	231/600K C31/600K
AHX 241/600	AOHX 241/600	570	600	413	TR 630X6	120.00	15	G 1/4	HM 31/570	MS 31/560-600		HMV 114E	TE 1/4BSP 01	HM 31/630		HMV 126E	BH 160 / BH 160-4.8	241/600K30 C41/600K30
AH 32/600	AOH 32/600	570	600	445	TR 650X6	167.00	15	G 1/4	HM 31/570	MS 31/560-600		HMV 114E	TE 1/4BSP 01	HM 130T		HMV 130E	BH 160 / BH 160-4.8	232/600K
AHX 32/600 G	AOHX 32/600 G	570	600	445	TR 630X6	159.00	15	G 1/4	HM 31/570	MS 31/560-600		HMV 114E	TE 1/4BSP 01	HM 31/630		HMV 126E	BH 100-0.7 / BH 160 / BH 160-4.8	232/600K
AH 39/630	AOH 39/630	600	630	210	TR 655X6	62.80	12	G 1/4	HM 30/600	MS 30/530-600		HMV 120E	TE 1/4BSP 01	HMLL 131T			BH 160 / BH 160-4.8	239/630K
AH 39/630 G	AOH 39/630 G	600	630	210	TR 670X6	69.40	15	G 1/4	HM 30/600	MS 30/530-600		HMV 120E	TE 1/4BSP 01	HM 30/670		HMV 134E	BH 100-0.7 / BH 160 / BH 160-4.8	239/630K
AH 30/630	AOH 30/630	600	630	258	TR 670X6	87.80	15	G 1/4	HM 30/600	MS 30/530-600		HMV 120E	TE 1/4BSP 01	HM 30/670		HMV 134E	BH 100-0.7 / BH 160 / BH 160-4.8	230/630K C30/630K
AH 240/630	AOH 240/630	600	630	330	TR 655X6	95.50	12	G 1/4	HM 31/600	MS 31/560-600		HMV 120E	TE 1/4BSP 01	HMLL 131T			BH 160 / BH 160-4.8	240/630K30
AH 240/630 G	AOH 240/630 G	600	630	330	TR 670X6	95.50	12	G 1/4	HM 31/600	MS 31/560-600		HMV 120E	TE 1/4BSP 01	HM 31/670		HMV 134E	BH 160 / BH 160-4.8	240/630K30
AH 31/630	AOH 31/630	600	630	375	TR 670X6	138.00	15	G 1/4	HM 31/600	MS 31/560-600		HMV 120E	TE 1/4BSP 01	HM 31/670		HMV 134E	BH 100-0.7 / BH 160 / BH 160-4.8	231/630K C31/630K
AH 241/630	AOH 241/630	600	630	440	TR 655X6	135.00	12	G 1/4	HM 31/600	MS 31/560-600		HMV 120E	TE 1/4BSP 01	HMLL 131T			BH 160 / BH 160-4.8	241/630K30
AH 241/630 G	AOH 241/630 G	600	630	440	TR 670X6	135.00	15	G 1/4	HM 31/600	MS 31/560-600		HMV 120E	TE 1/4BSP 01	HM 31/670		HMV 134E	BH 160 / BH 160-4.8	241/630K30
AH 32/630	AOH 32/630	600	630	475	TR 680X6	191.00	15	G 1/4	HM 31/600	MS 31/560-600		HMV 120E	TE 1/4BSP 01	HM 136T			BH 160 / BH 160-4.8	232/630K
AH 32/630 G	AOH 32/630 G	600	630	475	TR 670X6	191.00	15	G 1/4	HM 31/600	MS 31/560-600		HMV 120E	TE 1/4BSP 01	HM 31/670		HMV 134E	BH 100-0.7 / BH 160 / BH 160-4.8	232/630K
AH 39/670	AOH 39/670	630	670	216	TR 695X6	85.50	15	G 1/4	HM 30/630	MS 30/630		HMV 126E	TE 1/4BSP 01	HMLL 139T			BH 160 / BH 160-4.8	239/670K
AH 39/670 G	AOH 39/670 G	630	670	216	TR 710X7	92.90	15	G 1/4	HM 30/630	MS 30/630		HMV 126E	TE 1/4BSP 01	HM 30/710		HMV 142E	BH 160 / BH 160-4.8	239/670K
AH 30/670	AOH 30/670	630	670	280	TR 710X7	124.00	15	G 1/4	HM 30/630	MS 30/630		HMV 126E	TE 1/4BSP 01	HM 30/710		HMV 142E	BH 160 / BH 160-4.8	230/670K C30/670K



WITHDRAWAL SLEEVES
AH, AHX, AOH, AOHX



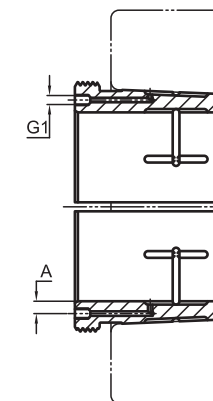
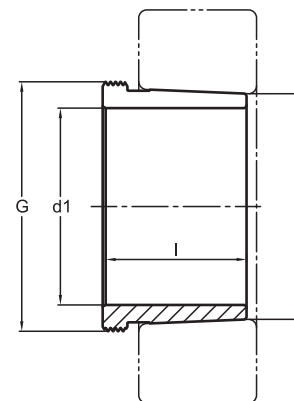
WITHDRAWAL SLEEVES AH, AHX

HYDRAULIC WITHDRAWAL SLEEVES
AOH, AOHX

Part Number	Hydraulic Part Number	d1 (mm)	d (mm)	l (mm)	G*	Weight (Kg)	HYDRAULIC		NUT + MOUNTING LOCK		ASSEMBLY TOOL		DISASSEMBLY TOOL			Hydraulic Pump	Bearings
							A	G1	Assembly Nut	Lockwasher / Locking Devices	Hook Spanner	Assembly Hydraulic Nut	Extension Tube	Withdrawal Nut	Withdrawal Hook Spanner		
AH 240/670	AOH 240/670	630	670	348	TR 695X6	136.00	15	G 1/4	HM 31/630	MS 31/630		HMV 126E	TE 1/4BSP 01	HMLL 139T		BH 160 / BH 160-4.8	240/670K30
AH 240/670 G	AOH 240/670 G	630	670	348	TR 710X7	136.00	15	G 1/4	HM 31/630	MS 31/630		HMV 126E	TE 1/4BSP 01	HM 31/710	HMV 142E	BH 160 / BH 160-4.8	240/670K30
AHX 31/670	AOHX 31/670	630	670	395	TR 710X7	189.00	15	G 1/4	HM 31/630	MS 31/630		HMV 126E	TE 1/4BSP 01	HM 31/710	HMV 142E	BH 160 / BH 160-4.8	231/670K C31/670K
AH 241/670	AOH 241/670	630	670	452	TR 710X7	183.00	15	G 1/4	HM 31/630	MS 31/630		HMV 126E	TE 1/4BSP 01	HM 31/710	HMV 142E	BH 160 / BH 160-4.8	241/670K30
AH 32/670	AOH 32/670	630	670	500	TR 720X7	256.00	15	G 1/4	HM 31/630	MS 31/630		HMV 126E	TE 1/4BSP 01	HM 144T		BH 160 / BH 160-4.8	232/670K
AH 32/670 G	AOH 32/670 G	630	670	500	TR 710X7	256.00	15	G 1/4	HM 31/630	MS 31/630		HMV 126E	TE 1/4BSP 01	HM 31/710	HMV 142E	BH 160 / BH 160-4.8	232/670K
AH 39/710	AOH 39/710	670	710	228	TR 740X7	102.00	15	G 1/4	HM 30/670	MS 30/670		HMV 134E	TE 1/4BSP 01	HMLL 148T		BH 160 / BH 160-4.8	239/710K
AH 39/710 G	AOH 39/710 G	670	710	228	TR 750X7	105.00	15	G 1/4	HM 30/670	MS 30/670		HMV 134E	TE 1/4BSP 01	HM 30/750	HMV 150E	BH 160 / BH 160-4.8	239/710K
AHX 30/710	AOHX 30/710	670	710	286	TR 750X7	138.00	15	G 1/4	HM 30/670	MS 30/670		HMV 134E	TE 1/4BSP 01	HM 30/750	HMV 150E	BH 160 / BH 160-4.8	230/710K C30/710K
AH 240/710	AOH 240/710	670	710	360	TR 740X7	150.00	15	G 1/4	HM 31/670	MS 31/670		HMV 134E	TE 1/4BSP 01	HMLL 148T		BH 160 / BH 160-4.8	240/710K30
AH 240/710 G	AOH 240/710 G	670	710	360	TR 750X7	150.00	15	G 1/4	HM 31/670	MS 31/670		HMV 134E	TE 1/4BSP 01	HM 31/750	HMV 150E	BH 160 / BH 160-4.8	240/710K30 C40/710K30
AHX 31/710	AOHX 31/710	670	710	405	TR 750X7	207.00	15	G 1/4	HM 31/670	MS 31/670		HMV 134E	TE 1/4BSP 01	HM 31/750	HMV 150E	BH 160 / BH 160-4.8	231/710K C31/710K
AH 241/710	AOH 241/710	670	710	483	TR 750X7	209.00	15	G 1/4	HM 31/670	MS 31/670		HMV 134E	TE 1/4BSP 01	HM 31/750	HMV 150E	BH 160 / BH 160-4.8	241/710K30
AH 32/710	AOH 32/710	670	710	515	TR 760X7	282.00	15	G 1/4	HM 31/670	MS 31/370		HMV 134E	TE 1/4BSP 01	HM 152T		BH 160 / BH 160-4.8	232/710K
AH 32/710 G	AOH 32/710 G	670	710	515	TR 750X7	282.00	15	G 1/4	HM 31/670	MS 31/670		HMV 134E	TE 1/4BSP 01	HM 31/750	HMV 150E	BH 160 / BH 160-4.8	232/710K
AH 39/750	AOH 39/750	710	750	234	TR 780X7	99.20	15	G 1/4	HM 30/710	MS 30/710		HMV 142E	TE 1/4BSP 01	HMLL 156T		BH 160 / BH 160-4.8	239/750K
AH 39/750 G	AOH 39/750 G	710	750	234	TR 800X7	118.00	15	G 1/4	HM 30/710	MS 30/710		HMV 142E	TE 1/4BSP 01	HM 30/800	HMV 160E	BH 160 / BH 160-4.8	239/750K
AH 30/750	AOH 30/750	710	750	300	TR 800X7	181.00	15	G 1/4	HM 30/710	MS 30/710		HMV 142E	TE 1/4BSP 01	HM 30/800	HMV 160E	BH 160 / BH 160-4.8	230/750K C30/750K
AH 240/750	AOH 240/750	710	750	380	TR 780X7	170.00	15	G 1/4	HM 31/710	MS 31/710		HMV 142E	TE 1/4BSP 01	HMLL 156T		BH 160-4.8	240/750K30
AH 240/750 G	AOH 240/750 G	710	750	380	TR 800X7	170.00	15	G 1/4	HM 31/710	MS 31/710		HMV 142E	TE 1/4BSP 01	HM 31/800	HMV 160E	BH 160-4.8	240/750K30
AH 31/750	AOH 31/750	710	750	425	TR 800X7	236.00	15	G 1/4	HM 31/710	MS 31/710		HMV 142E	TE 1/4BSP 01	HM 31/800	HMV 160E	BH 160 / BH 160-4.8	231/750K C31/750K
AH 241/750	AOH 241/750	710	750	520	TR 780X7	240.00	15	G 1/4	HM 31/710	MS 31/710		HMV 142E	TE 1/4BSP 01	HMLL 156T		BH 160-4.8	241/750K30
AH 241/750 G	AOH 241/750 G	710	750	520	TR 800X7	240.00	15	G 1/4	HM 31/710	MS 31/710		HMV 142E	TE 1/4BSP 01	HM 31/800	HMV 160E	BH 160-4.8	241/750K30
AH 32/750	AOH 32/750	710	750	540	TR 800X7	362.00	15	G 1/4	HM 31/710	MS 31/710		HMV 142E	TE 1/4BSP 01	HM 31/800	HMV 160E	BH 160 / BH 160-4.8	232/750K
AH 39/800	AOH 39/800	750	800	245	TR 830X7	99.20	15	G 1/4	HM 30/750	MS 30/750-800		HMV 150E	TE 1/4BSP 01	HMLL 166T		BH 160 / BH 160-4.8	239/800K
AH 39/800 G	AOH 39/800 G	750	800	245	TR 850X7	155.00	15	G 1/4	HM 30/750	MS 30/750-800		HMV 150E	TE 1/4BSP 01	HM 30/850	HMV 170E	BH 160 / BH 160-4.8	239/800K
AH 30/800	AOH 30/800	750	800	308	TR 850X7	200.00	15	G 1/4	HM 30/750	MS 30/750-800		HMV 150E	TE 1/4BSP 01	HM 30/850	HMV 170E	BH 160 / BH 160-4.8	230/800K C30/800K
AH 240/800	AOH 240/800	750	800	395	TR 830X7	234.00	15	G 1/4	HM 31/750	MS 31/750-800		HMV 150E	TE 1/4BSP 01	HMLL 166T		BH 160-4.8	240/800K30
AH 240/800 G	AOH 240/800 G	750	800	395	TR 850X7	234.00	15	G 1/4	HM 31/750	MS 31/750-800		HMV 150E	TE 1/4BSP 01	HM 31/850	HMV 170E	BH 160-4.8	240/800K30
AH 31/800	AOH 31/800	750	800	438	TR 850X7	304.00	15	G 1/4	HM 31/750	MS 31/750-800		HMV 150E	TE 1/4BSP 01	HM 31/850	HMV 170E	BH 160 / BH 160-4.8	231/800K C31/800K
AH 241/800	AOH 241/800	750	800	525	TR 830X7	306.00	15	G 1/4	HM 31/750	MS 31/750-800		HMV 150E	TE 1/4BSP 01	HMLL 166T		BH 160-4.8	241/800K30
AH 241/800 G	AOH 241/800 G	750	800	525	TR 850X7	306.00	15	G 1/4	HM 31/750	MS 31/750-800		HMV 150E	TE 1/4BSP 01	HM 31/850	HMV 170E	BH 160-4.8	241/800K30
AH 32/800	AOH 32/800	750	800	550	TR 850X7	403.00	15	G 1/4	HM 31/750	MS 31/750-800		HMV 150E	TE 1/4BSP 01	HM 31/850	HMV 170E	BH 160 / BH 160-4.8	232/800K
AH 39/850	AOH 39/850	800	850	258	TR 880X7	166.00	15	G 1/4	HM 30/800	MS 30/750-800		HMV 160E	TE 1/4BSP 01	HMLL 176T		BH 160 / BH 160-4.8	239/850K
AH 39/850 G	AOH 39/850 G	800	850	258	TR 900X7	176.00	15	G 1/4	HM 30/800	MS 30/750-800		HMV 160E	TE 1/4BSP 01	HM 30/900	HMV 180E	BH 160 / BH 160-4.8	239/850K
AH 30/850	AOH 30/850	800	850	325	TR 900X7	226.00	15	G 1/4	HM 30/800	MS 30/750-800		HMV 160E	TE 1/4BSP 01	HM 30/900	HMV 180E	BH 160 / BH 160-4.8	230/850K C30/850K



WITHDRAWAL SLEEVES
AH, AHX, AOH, AOHX



WITHDRAWAL SLEEVES AH, AHX

HYDRAULIC WITHDRAWAL SLEEVES
AOH, AOHX

Part Number	Hydraulic Part Number	d1 (mm)	d (mm)	l (mm)	G*	Weight (Kg)	HYDRAULIC		NUT + MOUNTING LOCK		ASSEMBLY TOOL		DISASSEMBLY TOOL			Hydraulic Pump	Bearings
							A	G1	Assembly Nut	Lockwasher / Locking Devices	Hook Spanner	Assembly Hydraulic Nut	Extension Tube	Withdrawal Nut	Withdrawal Hook Spanner		
AH 240/850	AOH 240/850	800	850	415	TR 880X7	252.00	15	G 1/4	HM 31/800	MS 31/750-800		HMV 160E	TE 1/4BSP 01	HMLL 176T		BH 160-4.8	240/850K30
AH 240/850 G	AOH 240/850 G	800	850	415	TR 900X7	252.00	15	G 1/4	HM 31/800	MS 31/750-800		HMV 160E	TE 1/4BSP 01	HM 31/900		BH 160-4.8	240/850K30
AH 31/850	AOH 31/850	800	850	462	TR 900X7	342.00	15	G 1/4	HM 31/800	MS 31/750-800		HMV 160E	TE 1/4BSP 01	HM 31/900		BH 160 / BH 160-4.8	231/850K C31/850K
AH 241/850	AOH 241/850	800	850	560	TR 900X7	344.00	15	G 1/4	HM 31/800	MS 31/750-800		HMV 160E	TE 1/4BSP 01	HM 31/900		BH 160-4.8	241/850K30
AH 32/850	AOH 32/850	800	850	585	TR 900X7	458.00	15	G 1/4	HM 31/800	MS 31/750-800		HMV 160E	TE 1/4BSP 01	HM 31/900		BH 160 / BH 160-4.8	232/850K
AH 39/900	AOH 39/900	850	900	265	TR 930X8	182.00	15	G 1/4	HM 30/850	MS 30/850-900		HMV 170E	TE 1/4BSP 01	HMLL 186T		BH 160 / BH 160-4.8	239/900K
AH 39/900 G	AOH 39/900 G	850	900	265	TR 950X8	192.00	15	G 1/4	HM 30/850	MS 30/850-900		HMV 170E	TE 1/4BSP 01	HM 30/950		BH 160 / BH 160-4.8	239/900K
AH 30/900	AOH 30/900	850	900	335	TR 950X8	248.00	15	G 1/4	HM 30/850	MS 30/850-900		HMV 170E	TE 1/4BSP 01	HM 30/950		BH 160 / BH 160-4.8	230/900K C30/900K
AH 240/900	AOH 240/900	850	900	430	TR 950X8	276.00	15	G 1/4	HM 31/850	MS 31/850		HMV 170E	TE 1/4BSP 01	HM 31/950		BH 160-4.8	240/900K30
AH 31/900	AOH 31/900	850	900	475	TR 950X8	375.00	15	G 1/4	HM 31/850	MS 31/850		HMV 170E	TE 1/4BSP 01	HM 31/950		BH 160 / BH 160-4.8	231/900K
AH 241/900	AOH 241/900	850	900	575	TR 950X8	402.00	15	G 1/4	HM 31/850	MS 31/850		HMV 170E	TE 1/4BSP 01	HM 31/950		BH 160-4.8	241/900K30
AH 32/900	AOH 32/900	850	900	585	TR 950X8	485.00	15	G 1/4	HM 31/850	MS 31/850		HMV 170E	TE 1/4BSP 01	HM 31/950		BH 160 / BH 160-4.8	232/900K
AH 39/950	AOH 39/950	900	950	282	TR 980X8	206.00	15	G 1/4	HM 30/900	MS 30/850-900		HMV 180E	TE 1/4BSP 01	HMLL 196T		BH 160 / BH 160-4.8	239/950K
AH 39/950 G	AOH 39/950 G	900	950	282	TR 1000X8	216.00	15	G 1/4	HM 30/900	MS 30/850-900		HMV 180E	TE 1/4BSP 01	HM 30/1000		BH 160 / BH 160-4.8	239/950K
AH 30/950	AOH 30/950	900	950	355	TR 1000X8	279.00	15	G 1/4	HM 30/900	MS 30/850-900		HMV 180E	TE 1/4BSP 01	HM 30/1000		BH 160 / BH 160-4.8	230/950K C30/950K
AH 240/950	AOH 240/950	900	950	467	TR 1000X8	318.00	15	G 1/4	HM 31/900	MS 31/900		HMV 180E	TE 1/4BSP 01	HM 31/1000		BH 160-4.8	240/950K30
AH 31/950	AOH 31/950	900	950	500	TR 1000X8	422.00	15	G 1/4	HM 31/900	MS 31/900		HMV 180E	TE 1/4BSP 01	HM 31/1000		BH 160 / BH 160-4.8	231/950K
AH 32/950	AOH 32/950	900	950	600	TR 1000X8	527.00	15	G 1/4	HM 31/900	MS 31/900		HMV 180E	TE 1/4BSP 01	HM 31/1000		BH 160 / BH 160-4.8	232/950K
AH 241/950	AOH 241/950	900	950	605	TR 1000X8	423.00	15	G 1/4	HM 31/900	MS 31/900		HMV 180E	TE 1/4BSP 01	HM 31/1000		BH 160-4.8	241/950K30
AH 39/1000	AOH 39/1000	950	1000	296	TR 1035X8	207.20	15	G 1/4	HM 30/950	MS 30/950		HMV 190E	TE 1/4BSP 01	HMLL 207T		BH 160-4.8	239/1000K
AH 39/1000 G	AOH 39/1000 G	950	1000	296	TR 1060X8	246.00	15	G 1/4	HM 30/950	MS 30/950		HMV 190E	TE 1/4BSP 01	HM 30/1060		BH 160 / BH 160-4.8	239/1000K
AH 30/1000	AOH 30/1000	950	1000	365	TR 1060X8	283.00	15	G 1/4	HM 30/950	MS 30/950		HMV 190E	TE 1/4BSP 01	HM 30/1060		BH 160 / BH 160-4.8	230/1000K C30/1000K
AH 240/1000	AOH 240/1000	950	1000	469	TR 1060X8	353.00	15	G 1/4	HM 31/950	MS 31/950		HMV 190E	TE 1/4BSP 01	HM 31/1060		BH 160-4.8	240/1000K30
AH 31/1000	AOH 31/1000	950	1000	525	TR 1060X8	482.00	15	G 1/4	HM 31/950	MS 31/950		HMV 190E	TE 1/4BSP 01	HM 31/1060		BH 160 / BH 160-4.8	231/1000K C31/1000K
AH 32/1000	AOH 32/1000	950	1000	630	TR 1060X8	603.00	15	G 1/4	HM 31/950	MS 31/950		HMV 190E	TE 1/4BSP 01	HM 31/1060		BH 160 / BH 160-4.8	232/1000K
AH 241/1000	AOH 241/1000	950	1000	645	TR 1060X8	482.00	15	G 1/4	HM 31/950	MS 31/950		HMV 190E	TE 1/4BSP 01	HM 31/1060		BH 160-4.8	241/1000K30
AH 39/1060	AOH 39/1060	1000	1060	310	TR 1095X8	312.00	15	G 1/4	HM 30/1000	MS 30/1000		HMV 200E	TE 1/4BSP 01	HMLL 219T		BH 160-4.8	239/1060K
AH 39/1060 G	AOH 39/1060 G	1000	1060	310	TR 1120X8	312.00	15	G 1/4	HM 30/1000	MS 30/1000		HMV 200E	TE 1/4BSP 01	HM 30/1120		BH 160-4.8	239/1060K
AH 30/1060	AOH 30/1060	1000	1060	385	TR 1120X8	400.00	15	G 1/4	HM 30/1000	MS 30/1000		HMV 200E	TE 1/4BSP 01	HM 30/1120		BH 160-4.8	230/1060K
AH 240/1060	AOH 240/1060	1000	1060	498	TR 1120X8	440.00	15	G 1/4	HM 31/1000	MS 31/1000		HMV 200E	TE 1/4BSP 01	HM 31/1120		BH 160-4.8	240/1060K30
AH 31/1060	AOH 31/1060	1000	1060	540	TR 1120X8	595.00	15	G 1/4	HM 31/1000	MS 31/1000		HMV 200E	TE 1/4BSP 01	HM 31/1120		BH 160-4.8	231/1060K
AH 241/1060	AOH 241/1060	1000	1060	665	TR 1120X8	605.00	15	G 1/4	HM 31/1000	MS 31/1000		HMV 200E	TE 1/4BSP 01	HM 31/1120		BH 160-4.8	241/1060K30

LOCK NUTS **KM, KML, HM, HML, HMT, HME**

Besides being a sleeve accessory, lock nuts have their own applications, such as to locate bearings, gears and pulleys on the shafts ends. BGL nuts have strictly controlled measurements according to international standards to ensure an assembly with the required precision. When manufactured in nodular, they have the advantage of being tightened with less effort, due to the graphite included in their alloy, besides reducing the risk of jamming over time and use. Locking with MB washer or MS locking clip is required.

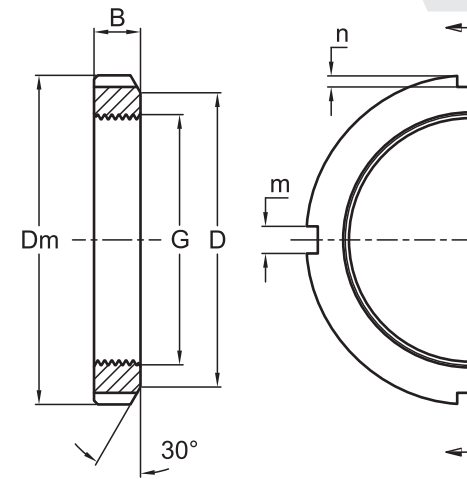
Material: BGL Nodular (Ductile) with characteristics exceeding the DIN 1563 rule class GJS 500-7 (formerly GGG50).

Optional: Carbon steel and stainless steel.





LOCK NUTS
KM, KML
Metric Thread - mm

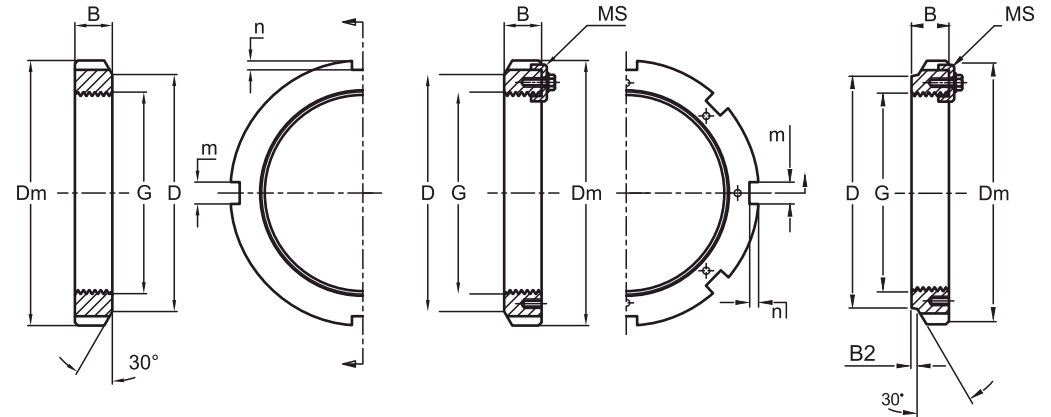


NUTS KM, KML

Part Number	G*	D (mm)	Dm (mm)	B (mm)	B3 (mm)	m (mm)	n (mm)	Weight (Kg)	Lockwasher	Hook Spanner
KM 0	M10x0.75	13.5	18	4		3	2	0.04	MB 0	HN 1
KM 1	M12x1	17	22	4		3	2	0.01	MB 1	HN 1
KM 2	M15x1	21	25	5		4	2	0.01	MB 2	HN 2
KM 3	M17x1	24	28	5		4	2	0.01	MB 3	HN 3
KM 4	M20x1	26	32	6		4	2	0.02	MB 4	HN 4
KM 5	M25x1,5	32	38	7		5	2	0.03	MB 5	HN 5
KM 6	M30x1,5	38	45	7		5	2	0.04	MB 6	HN 6
KM 7	M35x1,5	44	52	8		5	2	0.06	MB 7	HN 7
KM 8	M40x1,5	50	58	9		6	2.5	0.08	MB 8	HN 8
KM 9	M45x1,5	56	65	10		6	2.5	0.11	MB 9	HN 9
KM 10	M50x1,5	61	70	11		6	2.5	0.13	MB 10	HN 10
KM 11X1.5	M55x1,5	67	75	11		7	3	0.14	MB 11	HN 11
KM 11	M55x2	67	75	11		7	3	0.15	MB 11	HN 11
KM 12X1.5	M60x1,5	73	80	11		7	3	0.16	MB 12	HN 12
KM 12	M60x2	73	80	11		7	3	0.16	MB 12	HN 12
KM 13X1.5	M65x1,5	79	85	12		7	3	0.19	MB 13	HN 13
KM 13	M65x2	79	85	12		7	3	0.19	MB 13	HN 13
KM 14	M70x2	85	92	12		8	3.5	0.22	MB 14	HN 14
KM 15	M75x2	90	98	13		8	3.5	0.26	MB 15	HN 15
KM 16	M80x2	95	105	15		8	3.5	0.36	MB 16	HN 16
KM 17	M85x2	102	110	16		8	3.5	0.41	MB 17	HN 17
KM 18	M90x2	108	120	16		10	4	0.52	MB 18	HN 18
KM 19	M95x2	113	125	17		10	4	0.58	MB 19	HN 19
KM 20	M100x2	120	130	18		10	4	0.65	MB 20	HN 20
KM 21	M105x2	126	140	18		12	5	0.79	MB 21	HN 21
KM 22	M110x2	133	145	19		12	5	0.88	MB 22	HN 22
KM 23	M115x2	137	150	19		12	5	0.92	MB 23	HN 23
KM 24	M120x2	138	155	20		12	5	0.97	MB 24	HN 24
KML 24	M120x2	135	145	20		12	5	0.69	MBL 24	HN 22
KM 25	M125x2	148	160	21		12	5	1.08	MB 23	HN 25
KM 26	M130x2	149	165	21		12	5	1.1	MB 26	HN 26
KML 26	M130x2	145	155	21		12	5	0.78	MBL 26	HN 24
KM 27	M135x2	160	175	22		14	6	1.40	MB 27	HN 27
KM 28	M140x2	160	180	22		14	6	1.41	MB 28	HN 28
KML 28	M140x2	155	165	22		12	5	0.88	MBL 28	HN 26
KM 29	M145x2	171	190	24		14	6	1.84	MB 29	HN 29
KM 30	M150x2	171	195	24		14	6	1.88	MB 30	HN 30
KML 30	M150x2	170	180	24		14	5	1.25	MBL 30	HN 28
KM 31	M155x3	182	200	25		16	7	2.07	MB 31	HN 31
KML 32	M160x3	180	190	25		14	5	1.41	MBL 32	HN 29



LOCK NUTS
KM, KML, HM, HME, HML, HMT
 Metric Thread - mm



NUTS KM, KML, HM ...T, HML ...T

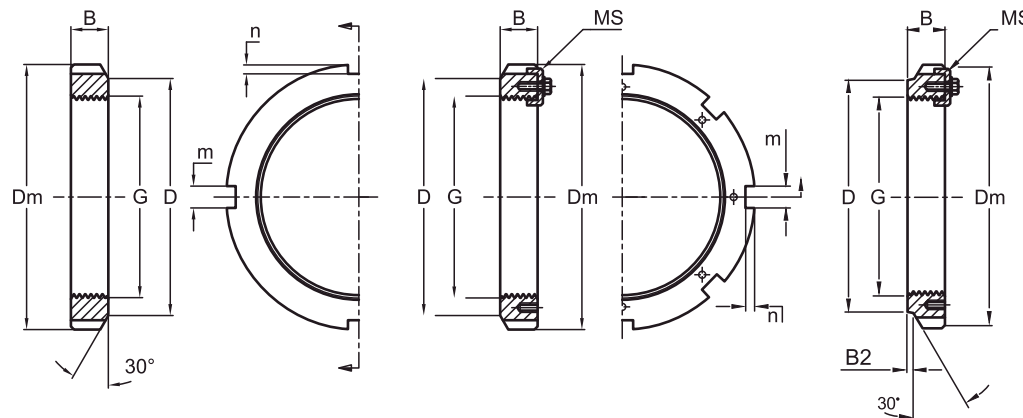
NUTS HM WITH MS

NUTS HME WITH MS

Part Number	G*	D (mm)	Dm (mm)	B (mm)	B3 (mm)	m (mm)	n (mm)	Weight (Kg)	Lockwasher	Hook Spanner
KML 32	M160x3	180	190	25		14	5	1,41	MBL 32	HN 29
KM 32	M160x3	182	210	25		16	7	2,28	MB 32	HN 32-HN 33
KM 33	M165x3	193	210	26		16	7	2,29	MB 33	HN 32-HN 33
KML 34	M170x3	190	200	26		16	5	1,55	MBL 34	HN 31
KM 34	M170x3	193	220	26		16	7	2,54	MB 34	HN 34
KML 36	M180x3	200	210	27		16	5	1,68	MBL 36	HN 32-HN 33
KM 36	M180x3	203	230	27		18	8	2,77	MB 36	HN 36
KML 38	M190x3	210	220	28		16	5	1,85	MBL 38	HN 34
KM 38	M190x3	214	240	28		18	8	3,03	MB 38	HN 38
KML 40	M200x3	220	240	29		18	8	2,65	MBL 40	HN 38
KM 40	M200x3	226	250	29		18	8	3,35	MB 40	HN 40
HML 41T	Tr 205x4	232	250	30		18	8	3,2		HN 40
HMLL 42T	Tr 210x4	234	250	26		18	8	4,22		HN 40
HM 42T	Tr 210x4	238	270	30		20	10	4,22		HN 40
HML 43T	Tr 215x4	242	260	30		20	9	3,72		HN 40
HM 3044	Tr 220x4	242	260	30		20	9	2,8	MS 3044	HN 44
HME 3044	Tr 220x4	237	260	30	5	20	9	2,5	MS 3044	
HM 3144	Tr 220x4	250	280	32		20	10	4,58	MS 3144-MS 3148	HN 44
HM 44T	Tr 220x4	250	280	32		20	10	4,8	MB 44	HN 44
HMLL 46T	Tr 230x4	254	270	26		18	8	4		
HM 46T	Tr 230x4	260	290	34		20	10	3,1		
HML 47T	Tr 235x4	262	280	34		20	9	5,4		
HM 3048	Tr 240x4	270	290	34		20	10	4,1	MS 3048-MS3052	
HME 3048	Tr 240x4	264	290	34	8	20	10	4,41	MS 3048-MS3052	
HM 3148	Tr 240x4	270	300	34		20	10	5,36	MS 3144-MS3148	
HM 48T	Tr 240x4	270	300	34		20	10	5,6	MB 48	
HMLL 50T	Tr 250x4	274	290	26		18	8	3,4		
HM 50T	Tr 250x4	290	320	36		20	10	7,2		
HM 3052	Tr 260x4	290	310	34		20	10	4,73	MS 3048-MS3052	
HME 3052	Tr 260x4	288	310	34	8	20	10	4,3	MS 3048-MS3052	
HML 52T	Tr 260x4	290	310	34		20	10	5,15		
HM 3152	Tr 260x4	300	330	36		24	12	7,2	MS 3152-MS 3156	
HM 52T	Tr 260x4	300	330	36		24	12	7,34	MB 52	
HM 54T	Tr 270x4	310	340	38		24	12	4,4		
HMLL 55T	Tr 275x4	304	320	27		18	8	5,49		
HML 56T	Tr 280x4	310	330	30		24	10	5,8		
HM 3056	Tr 280x4	310	330	38		24	10	8,24	MS 3056	
HM 3156	Tr 280x4	320	350	38		24	12	8,61	MS 3152-MS 3156	
HM 56T	Tr 280x4	320	350	38		24	12	0,54	MB 56	
HM 58T	Tr 290x4	330	370	40		24	12			



LOCK NUTS
HME, HML, HMT
Metric Thread - mm



NUTS HM ...T, HML ...T

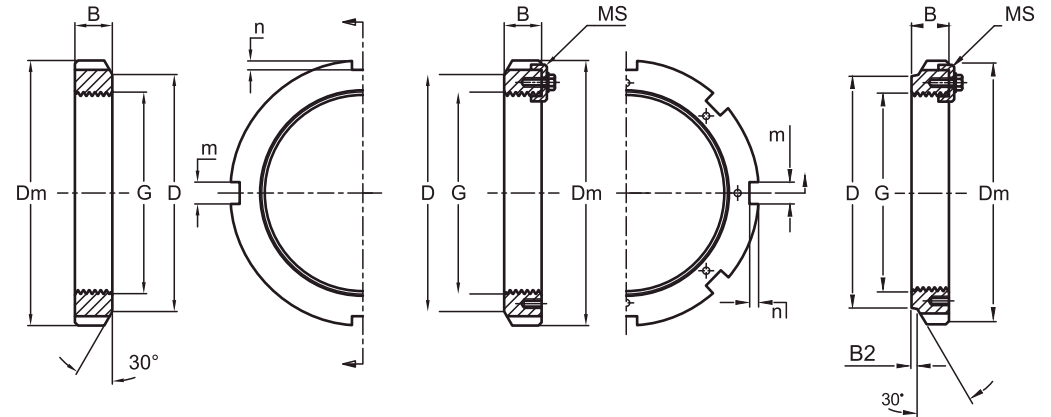
NUTS HM WITH MS

NUTS HME WITH MS

Part Number	G*	D (mm)	Dm (mm)	B (mm)	B3 (mm)	m (mm)	n (mm)	Weight (Kg)	Lockwasher	Hook Spanner
HMLL 59T	Tr 295x4	320	340	27		20	10	4,6		
HML 60T	Tr 300x4	336	360	31		24	12	6,2		
HM 3160	Tr 300x4	340	380	40		24	12	10,6	MS 3160	
HME 3160	Tr 300x4	335	380	40	5	24	12	11	MS 3160	
HM 60T	Tr 300x4	340	380	40		24	12	10,8	MB 60	
HM 3060	Tr 300x4	336	360	42		24	12	8,4	MS 3060	
HM 62T	Tr 310x5	350	390	42		24	12	13		
HMLL 63T	Tr 315x5	350	370	28		20	10	5,4		
HM 64T	Tr 320x5	370	400	40		24	12	12,2		
HM 3064	Tr 320x5	356	380	42		24	12	8,8	MS 3064-MS 3068	
HM 3164	Tr 320x5	360	400	42		24	12	11,8	MS 3164	
HML 64T	Tr 320x5	356	380	42		24	12	9,2		
HM 66T	Tr 330x5	380	420	52		28	15	18		
HMLL 67T	Tr 335x5	370	390	28		20	10	6,7		
HM 68T	Tr 340x5	390	420	42		28	15	13,2		
HM 3068	Tr 340x5	376	400	45		24	12	10,1	MS 3064-MS 3068	
HM 3168	Tr 340x5	400	440	55		28	15	21,4	MS 3168-MS 3172	
HME 3168	Tr 340x5	382	440	55	8	28	15	22	MS 3168-MS 3172	
HML 69T	Tr 345x5	384	410	45		28	13	13		
HM 70T	Tr 350x5	410	450	55		28	15	22,8		
HMLL 71T	Tr 355x5	386	410	28		24	12	6,9		
HML 72T	Tr 360x5	394	420	35		28	13	10,2		
HM 3072	Tr 360x5	394	420	45		28	13	10,6	MS 3072	
HME 3072	Tr 360x5	394	420	45	8	28	13	11	MS 3072	
HM 3172	Tr 360x5	420	460	58		28	15	24	MS 3168-MS 3172	
HME 3172	Tr 360x5	406	460	58	10	28	15	24	MS 3168-MS 3172	
HM 72T	Tr 360x5	420	460	58		28	15	27,5		
HML 73T	Tr 365x5	404	430	48		28	13	13		
HM 74T	Tr 370x5	430	470	58		28	15	28		
HMLL 75T	Tr 375x5	406	430	28		24	12	7,3		
HML 76T	Tr 380x5	417	445	37		28	14	11,3		
HM 76T	Tr 380x5	430	470	45		32	18	20,2		
HM 3076	Tr 380x5	422	450	48		28	14	14,6	MS 3076-MS 3080	
HME 3076	Tr 380x5	422	450	48	10	28	14	14	MS 3076-MS 3080	
HM 3176	Tr 380x5	440	490	60		32	18	28,2	MS 3176	
HME 3176	Tr 380x5	438	490	60	15	32	18	28,5	MS 3176	
HML 77T	Tr 385x5	422	450	48		28	14	15		
HMLL 79T	Tr 395x5	436	460	30		24	12	9,9		
HM 3080	Tr 400x5	442	470	52		28	14	16	MS 3076-MS 3080	
HME 3080	Tr 400x5	442	470	52	10	28	14	16	MS 3076-MS 3080	



LOCK NUTS
HME, HML, HMT
Metric Thread - mm



NUTS HM ...T, HML ...T

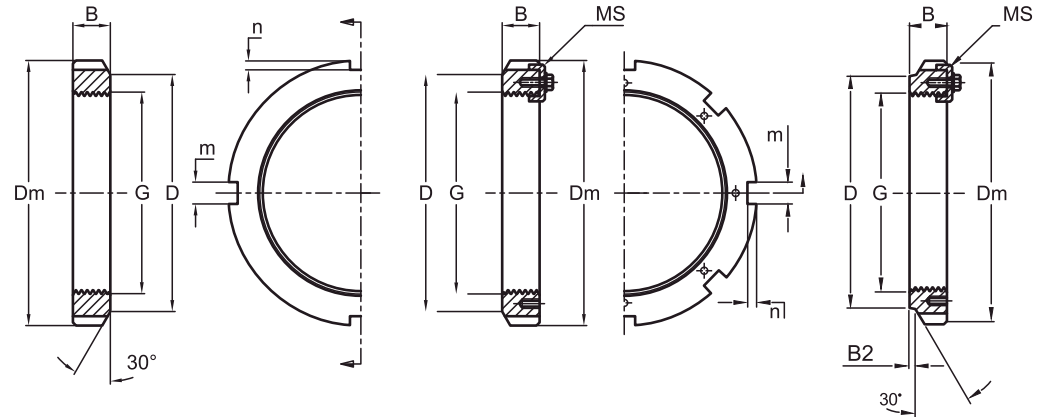
NUTS HM WITH MS

NUTS HME WITH MS

Part Number	G*	D (mm)	Dm (mm)	B (mm)	B3 (mm)	m (mm)	n (mm)	Weight (Kg)	Lockwasher	Hook Spanner
HME 3180	Tr 400x5	456	520	62	15	32	18	33	MS 3180-MS 3184	
HM 80T	Tr 400x5	470	520	62		32	18	35,4		
HML 82T	Tr 410x5	452	480	52		32	14	19		
HMLL 83T	Tr 415x5	456	480	30		24	12	10,3		
HM 3084	Tr 420x5	462	490	52		32	14	16,8	MS 3084	
HME 3084	Tr 420x5	462	490	52	10	32	14	17	MS 3084	
HM 3184	Tr 420x5	490	540	70		32	18	40,4	MS 3180-MS 3184	
HM 84T	Tr 420x5	490	540	70		32	18	47		
HML 86T	Tr 430x5	472	500	52		32	14	20		
HMLL 87T	Tr 435x5	474	500	30		28	13	10,7		
HM 3088	Tr 440x5	490	520	60		32	15	23,4	MS 3088-MS 3092	
HME 3088	Tr 440x5	488	520	60	12	32	15	24	MS 3088-MS 3092	
HM 3188	Tr 440x5	510	560	70		36	20	41,6	MS 3188-MS 3192	
HME 3188	Tr 440x5	508	560	70	15	36	20	42,5	MS 3188-MS 3192	
HM 88T	Tr 440x5	510	560	70		36	20	48,5		
HML 90T	Tr 450x5	490	520	60		32	15	24		
HMLL 92T	Tr 460x5	504	530	33		28	13	13,5		
HM 92T	Tr 460x5	510	550	53		36	20	28,8		
HM 3092	Tr 460x5	510	540	60		32	15	24,8	MS 3088-MS 3092	
HM 3192	Tr 460x5	540	580	75		36	20	47,6	MS 3188-MS 3192	
HME 3192	Tr 460x5	535	580	75	20	36	20	45,5	MS 3188-MS 3192	
HML 94T	Tr 470x5	510	540	43		32	15	15,6		
HMLL 96T	Tr 480x5	522	550	33		32	14	13,9		
HM 96T	Tr 480x5	540	590	56		36	20	33,8		
HM 3096	Tr 480x5	530	560	60		36	15	28,3	MS 3096-30/500	
HME 3096	Tr 480x5	530	560	60	12	36	15	26	MS 3096-30/500	
HM 3196	Tr 480x5	560	620	75		36	20	62	MS 3196	
HME 3196	Tr 480x5	560	620	75	20	36	20	55	MS 3196	
HML 98T	Tr 490x5	550	580	60		36	15	34		
HMLL 100T	Tr 500x5	547	575	37		32	15	17,6		
HM 30/500	Tr 500x5	550	580	68		36	15	29,6	MS 3096-30/500	
HME 30/500	Tr 500x5	550	580	68	12	36	15	31,5	MS 3096-30/500	
HM 31/500	Tr 500x5	580	630	80		40	23	59,4	MS 31/500	
HME 31/500	Tr 500x5	580	630	80	12	40	23	60	MS 31/500	
HM 102T	Tr 510x6	570	620	58		40	23	41,2		
HMLL 104T	Tr 520x6	565	595	42		32	15	20,8		
HML 104T	Tr 520x6	570	600	68		36	15	37		
HM 106T	Tr 530x6	590	640	60		40	23	44,2		
HM 30/530	Tr 530x6	590	630	68		40	20	39,8	MS 30/530-600	
HME 30/530	Tr 530x6	571	630	68	15	40	20	37	MS 30/530-600	



LOCK NUTS
HME, HML, HMT
Metric Thread - mm



NUTS HM ...T, HML ...T

NUTS HM WITH MS

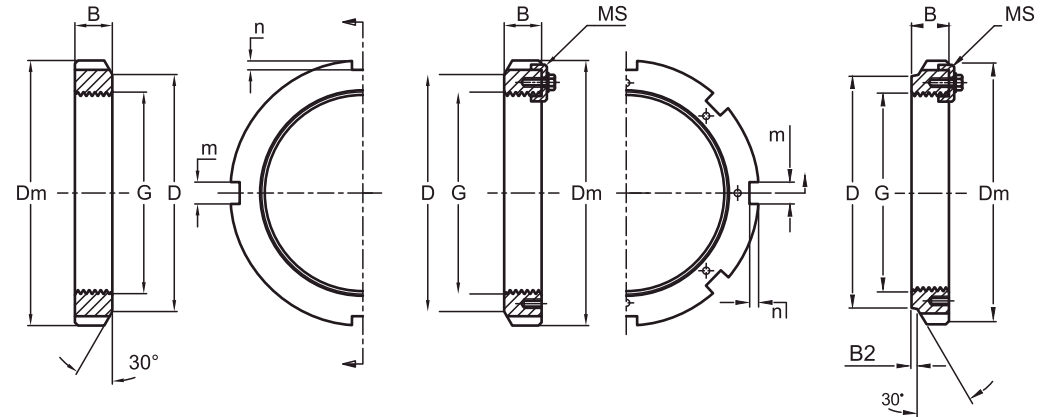
NUTS HME WITH MS

Part Number	G*	D (mm)	Dm (mm)	B (mm)	B3 (mm)	m (mm)	n (mm)	Weight (Kg)	Lockwasher	Hook Spanner
HM 31/530	Tr 530x6	610	670	80		40	23	67,4	MS 31/530	
HML 108T	Tr 540x6	590	620	49		40	20	23,8		
HMLL 110T	Tr 550x6	595	625	47		32	15	24,7		
HM 110T	Tr 550x6	640	700	85		40	23	79,5		
HML 112T	Tr 560x6	610	650	60		40	20	33,8		
HM 30/560	Tr 560x6	610	650	75		40	20	40,4	MS 30/560	
HME 30/560	Tr 560x6	610	650	75	15	40	20	41	MS 30/560	
HM 31/560	Tr 560x6	650	710	85		45	25	88,9	MS 31/560-600	
HME 31/560	Tr 560x6	650	710	85	15	45	25	80,5	MS 31/560-600	
HM 30/570	Tr 570x6	630	670	75		40	20	41,2	MS 30/750-800	
HM 31/570	Tr 570x6	660	720	85		45	25	87	MS 31/750-800	
HMLL 116T	Tr 580x6	630	660	47		32	15	30		
HM 116T	Tr 580x6	645	700	65		40	23	57,3		
HML 118T	Tr 590x6	650	690	63		40	20	47,7		
HM 30/600	Tr 600x6	660	700	75		40	20	49,6	MS 30/530-600	
HME 30/600	Tr 600x6	657	700	75	18	40	20	47	MS 30/530-600	
HM 31/600	Tr 600x6	690	750	85		45	25	94,9	MS 31/560-600	
HME 31/600	Tr 600x6	690	750	85	15	45	25	85	MS 31/560-600	
HM 122T	Tr 610x6	675	730	65		45	25	59,7		
HMLL 125T	Tr 625x6	675	710	48		36	15	32,3		
HML 126T	Tr 630x6	690	730	65		45	20	52,2		
HM 30/630	Tr 630x6	690	730	75		45	20	51,4	MS 30/630	
HME 30/630	Tr 630x6	690	730	75	18	45	20	50	MS 30/630	
HM 31/630	Tr 630x6	730	800	95		50	28	116,4	MS 31/630	
HME 31/630	Tr 630x6	730	800	95	18	50	28	115	MS 31/630	
HM 130T	Tr 650x6	720	780	67		45	25	70,9		
HMLL 131T	Tr 655x6	715	745	52		36	15	39,5		
HML 134T	Tr 670x6	730	770	70		45	20	59,8		
HM 30/670	Tr 670x6	740	780	80		45	20	66,2	MS 30/670	
HM 31/670	Tr 670x6	775	850	106		50	28	162	MS 31/670	
HME 31/670	Tr 670x6	775	850	106	18	50	28	144	MS 31/670	
HM 136T	Tr 680x6	750	820	72		50	28	84,8		
HMLL 139T	Tr 695x6	755	795	53		40	20	46,4		
HML 142T	Tr 710x7	780	830	70		50	25	75,7		
HM 30/710	Tr 710x7	780	830	90		50	25	90,7	MS 30/710	
HME 30/710	Tr 710x7	766	830	90	20	50	25	81	MS 30/710	
HM 31/710	Tr 710x7	825	900	106		55	30	180	MS 31/710	
HME 31/710	Tr 710x7	825	900	106	20	55	30	149	MS 31/710	
HM 144T	Tr 720x7	800	870	72		50	28	97,8		
HMLL 148T	Tr 740x7	800	840	55		40	20	51,5		

* Example of thread part number: TR 300 x 4, TR: Trapezoidal metric thread, 300: Thread diameter, 4: Thread pitch.



LOCK NUTS
HME, HML, HMT
Metric Thread - mm



NUTS HM ...T, HML ...T

NUTS HM WITH MS

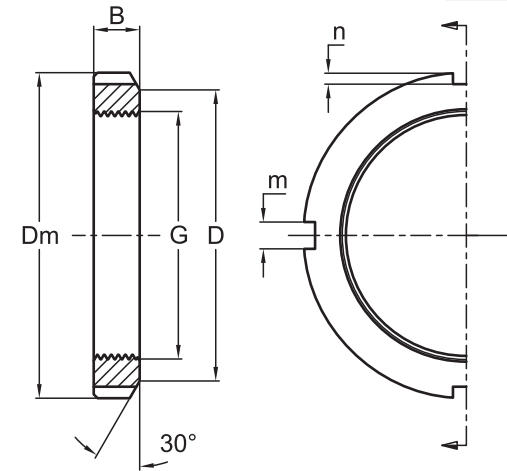
NUTS HME WITH MS

Part Number	G*	D (mm)	Dm (mm)	B (mm)	B3 (mm)	m (mm)	n (mm)	Weight (Kg)	Lockwasher	Hook Spanner
HML 150T	Tr 750x7	820	870	70		55	25	79,6		
HM 30/750	Tr 750x7	820	870	90		55	25	88,4	MS 30/750-800	
HME 30/750	Tr 750x7	820	870	90	20	55	25	85,5	MS 30/750-800	
HM 31/750	Tr 750x7	875	950	112		60	34	208	MS 31/750-800	
HME 31/750	Tr 750x7	875	950	112	20	60	34	177	MS 31/750-800	
HM 152T	Tr 760x7	830	910	75		55	30	104		
HMLL 156T	Tr 780x7	840	880	56		40	20	49,6		
HML 160T	Tr 800x7	865	920	70		55	25	84		
HM 160T	Tr 800x7	870	950	75		60	34	109		
HM 30/800	Tr 800x7	870	920	90		55	25	94,4	MS 30/750-800	
HME 30/800	Tr 800x7	870	920	90	20	55	25	90,5	MS 30/750-800	
HM 31/800	Tr 800x7	925	1000	112		60	34	221	MS 31/750-800	
HME 31/800	Tr 800x7	925	1000	112	20	60	34	187	MS 31/750-800	
HMLL 166T	Tr 830x7	890	930	57		40	20	59,7		
HML 170T	Tr 850x7	915	970	74		60	25	94		
HM 170T	Tr 850x7	930	1010	79		60	34	131		
HM 30/850	Tr 850x7	925	980	90		60	25	118	MS 30/850-900	
HME 30/850	Tr 850x7	925	980	90	20	60	25	104	MS 30/850-900	
HM 31/850	Tr 850x7	975	1060	118		70	38	254	MS 31/850	
HME 31/850	Tr 850x7	975	1060	118	25	70	38	212	MS 31/850	
HMLL 176T	Tr 880x7	950	990	62		45	20	76,3		
HML 180T	Tr 900x7	965	1020	74		60	25	99,3		
HM 180T	Tr 900x7	980	1060	82		70	38	142		
HM 30/900	Tr 900x7	975	1030	100		60	25	126	MS 30/850-900	
HME 30/900	Tr 900x7	975	1030	100	25	60	25	117	MS 30/850-900	
HM 31/900	Tr 900x7	1030	1120	125		70	38	303	MS 31/900	
HMLL 186T	Tr 930x8	1000	1040	63		45	20	82,2		
HML 190T	Tr 950x8	1015	1070	76		60	25	108		
HM 190T	Tr 950x8	1030	1110	83		70	38	153		
HM 30/950	Tr 950x8	1024	1080	100		60	25	148	MS 30/950	
HME 30/950	Tr 950x8	1025	1080	100	25	60	25	124	MS 30/950	
HM 31/950	Tr 950x8	1080	1170	125		70	38	321	MS 31/950	
HMLL 196T	Tr 980x8	1050	1090	65		45	20	89,3		
HM 200T	Tr 1000x8	1080	1160	83		70	38	161		
HM 30/1000	Tr 1000x8	1085	1140	100		60	25	155,6	MS 30/1000	
HME 30/1000	Tr 1000x8	1085	1140	100	25	60	25	141	MS 30/1000	
HM 31/1000	Tr 1000x8	1140	1240	125		70	38	374	MS 31/1000	
HME 31/1000	Tr 1000x8	1140	1240	125	25	70	38	305	MS 31/1000	
HMLL 207T	Tr 1035x8	1105	1155	67		50	25	104		
HML 212T	Tr 1060x8	1125	1180	78		60	25	124		

* Example of thread part number: TR 300 x 4, TR: Trapezoidal metric thread, 300: Thread diameter, 4: Thread pitch.



LOCK NUTS
KM, HM, HMT
Inch Thread Nuts



NUTS KM, HMT

Part Number	G*	D (mm)	Dm (mm)	B (mm)	B3 (mm)	m (mm)	n (mm)	Weight (Kg)	Lockwasher	Hook Spanner
KM 0 32F	0,391"x32F	13.5	18	4		3	2	0.04	MB 0	HN 1
KM 1 32F	0,469"x32F	17	22	4		3	2	0.01	MB 1	HN 1
KM 2 32F	0,586"x32F	21	25	5		4	2	0.01	MB 2	HN 2
KM 3 32F	0,664"x32F	24	28	5		4	2	0.01	MB 3	HN 3
KM 4 32F	0,781"x32F	26	32	6		4	2	0.02	MB 4	HN 4
KM 5 32F	0,969"x32F	32	38	7		5	2	0.02	MB 5	HN 5
KM 6 18F	1.173"x18F	38	45	7		5	2	0.04	MB 6	HN 6
KM 7 18F	1.376"x18F	44	52	8		5	2	0.06	MB 7	HN 7
KM 8 18F	1.563"x18F	50	58	9		6	2.5	0.08	MB 8	HN 8
KM 9 18F	1.767"x18F	56	65	10		6	2.5	0.11	MB 9	HN 9
KM 10 18F	1.967"x18F	61	70	11		6	2.5	0.13	MB 10	HN 10
KM 11 18F	2.157"x18F	67	75	11		7	3	0.14	MB 11	HN 11
KM 12 18F	2.360"x18F	73	80	11		7	3	0.16	MB 12	HN 12
KM 13 18F	2.548"x18F	79	85	12		7	3	0.19	MB 13	HN 13
KM 14 18F	2.751"x18F	85	92	12		8	3.5	0.22	MB 14	HN 14
KM 15 12F	2.933"x12F	90	98	13		8	3.5	0.27	MB 15	HN 15
KM 16 12F	3.137"x12F	95	105	15		8	3.5	0.37	MB 16	HN 16
KM 17 12F	3.340"x12F	102	110	16		8	3.5	0.41	MB 17	HN 17
KM 18 12F	3.527"x12F	108	120	16		10	5	0.53	MB 18	HN 18
KM 19 12F	3.730"x12F	113	125	17		10	4	0.59	MB 19	HN 19
KM 20 12F	3.918"x12F	120	130	18		10	4	0.67	MB 20	HN 20
KM 21 12F	4.122"x12F	126	140	18		12	5	0.8	MB 21	HN 21
KM 22 12F	4.325"x12F	133	145	19		12	5	0.89	MB 22	HN 22
KM 23 12F	4.5x12F	137	150	19		12	5	1.01	MB 23	HN 23
KM 24 12F	4.716"x12F	138	155	20		12	5	0.99	MB 24	HN 24
KM 26 12F	5.106"x12F	149	165	21		12	5	1.13	MB 26	HN 26
KM 28 12F	5.497"x12F	160	180	22		14	6	1.43	MB 28	HN 28
KM 30 12F	5.888"x12F	171	195	24		14	6	1.88	MB 30	HN 30
KM 32 8F	6.284"x8F	182	210	25		16	7	2.32	MB 32	HN 32-HN 33
KM 34 8F	6.659"x8F	193	220	26		16	7	2.6	MB 34	HN 34
KM 36 8F	7.066"x8F	203	230	27		18	8	2.83	MB 36	HN 36
KM 38 8F	7.472"x8F	214	240	28		18	8	3.08	MB 38	HN 38
KM 40 8F	7.847"x8F	226	250	29		18	8	3.39	MB 40	HN 40
HM 44T 8F	8,628"x8F	250	280	32		20	10	4.8	MB 44	HN 44
HM 48T 6F	9,442"x6	270	300	34		20	10	5.6	MB 48	HN 44
HM 52T 6F	10,192"x6	300	330	35		24	12	7.33	MB 52	HN 44
HM 56T 6F	11,004"x6	320	350	38		24	12	8.80	MB 56	HN 44
HM 3060 6F	11,785x6	336	360	42		24	12	8.40	MB 3060	HN 44
HM 3064 6F	12.562"x6	356	380	42		24	12	8.84	MS 3064 - MS 3068	HN 44

* Example of thread part number: 1,967" X 32 F 1,967": Thread diameter in decimal inch, 32 F: Thread pitch in threads per inch triangular thread profile: 60°.



LOCK NUTS KMP

The KMP's have external slots and are tightened using hook spanners. These lock nuts come with through-body locking bolt and brass pin that is pressed against the shaft to tighten the nut. The pin has a thread profile, enabling to lock the nut without damaging the shaft thread. No keyways or lock washer required.

LOCK NUTS KMFE

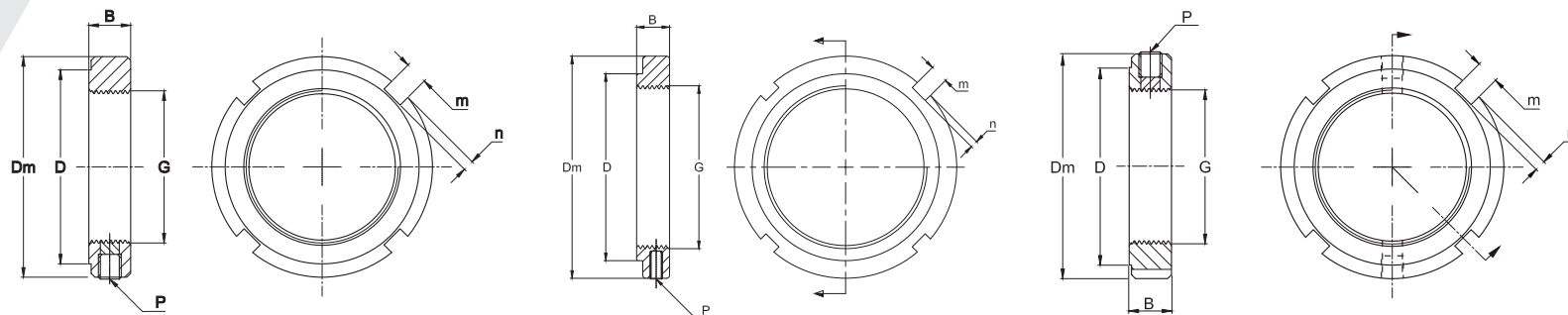
KMFE lock nuts are used with adapter sleeves with E suffix instead of a KM lock nut to mount sealed toroidal roller bearings or/and on shaft end. They should be tightened using a hook spanner. It is radially locked when its bolt is tightened pressing a few threads of the nut against the shaft. It does not require a lock washer or a counter nut. To withdraw the set, the bolt should be released and a few rubber hammer hits should be applied to the bolt region to force screw to return to its original position.

LOCK NUTS ZM

A hook spanner should be used to tighten the nut. It is radially arranged and its bolt is tightened by pressing a few threads of the nut thread against the shaft. It does not require a lock washer or counter nut. To withdraw the set, the bolt should be released and a few rubber hammer hits should be applied to the bolt region to force the screw return to its original position.

LOCK NUTS HMZ

The HMZ Lock nuts are manufactured to allow a precise and secure axial fastening of bearings or other components on cylindrical and tapered shafts and adapter sleeves. The HMZ nuts are interchangeable with locknuts HM and KM, with the advantage that it is not necessary to have key way on the shaft or other type of locking, what makes the usage more economic and safe. The HMZ nuts are locked by four or eight axial clamping screws spread around the nut's circumference for an uniform locking. HMZ Lock nuts are manufactured from steel with minimum tensile strength of 500 MPa.



LOCK NUTS
KMP, KMFE, ZM
Nuts with Metric Thread Fixed with Screw - mm

NUTS KMP

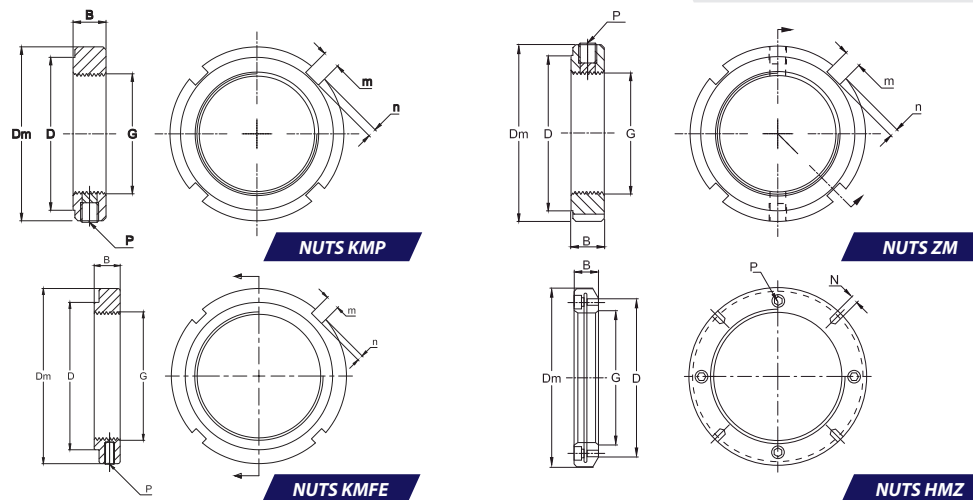
NUTS KMFE

NUTS ZM

Part Number	G*	Dm (mm)	B (mm)	D (mm)	m (mm)	n (mm)	P	Weight (Kg)	Hook Spanner	Basic Axial Static Load Capacity (kN)	Tightening Torque (Thread) Mvs (Nm)	Recommended Tightening Torque for Locking Screw (Nm)
ZM 6	M6x0,5	16	8	11	3	2	M4	0,01				
ZM 8	M8x0,75	16	8	11	3	2	M4	0,01				
ZM 10	M10x1	18	8	14	3	2	M4	0,01				
KMP 0	M10x0,75	22	9	16	3	2	M5	0,02	HN 1	9,8	19,6	4,5
ZM 12	M12x1	22	8	18	3	2	M4	0,02	HN 1			
KMP 1	M12x1	22	9	18	3	2	M5	0,02	HN 1	11,8	25,5	4,5
ZM 15	M15x1	25	8	21	3	2	M4	0,02	HN 2			
KMP 2	M15x1	25	9	21	4	2	M5	0,02	HN 2	14,6	46,5	4,5
KMP 3	M17x1	28	9	24	4	2	M5	0,03	HN 3	19,6	58,5	8
ZM 17	M17x1	28	10	23	4	2	M5	0,03	HN 3			
KMP 4	M20x1	32	9	28	4	2	M5	0,03	HN 4	24	78	8
KMFE 4	M20x1	32	9,5	26	4	2	M5	0,02	HN 4	24	78	4,5
ZM 20	M20x1	32	10	27	4	2	M5	0,04	HN 4			
KMP 5	M25x1,5	38	9	34	5	2	M5	0,04	HN 5	31,5	127	8
KMFE 5	M25x1,5	38	10,5	31	5	2	M5	0,05	HN 5	31,5	127	4,5
ZM 25	M25x1,5	38	12	33	5	2	M6	0,06	HN 5			
KMP 6	M30x1,5	45	9	41	5	2	M5	0,06	HN 6	36,5	176	8
KMFE 6	M30x1,5	45	10,5	36	5	2	M5	0,06	HN 6	36,5	176	4,5
ZM 30	M30x1,5	45	12	40	5	2	M6	0,08	HN 6			
KMP 7	M35x1,5	52	9	48	5	2	M5	0,08	HN 7	50	275	8
KMFE 7	M35x1,5	52	11,5	42,5	5	2	M5	0,07	HN 7	50	275	8
ZM 35	M35x1,5	52	12	47	5	2	M6	0,10	HN 7			
KMP 8	M40x1,5	58	11	53	6	2,5	M6	0,11	HN 8	62	400	18
KMFE 8	M40x1,5	58	13	47	6	2,5	M6	0,11	HN 8	52	400	8
ZM 40	M40x1,5	58	14	52	6	2,5	M6	0,14	HN 8			
KMP 9	M45x1,5	65	11	60	6	2,5	M6	0,14	HN 9	78	560	18
KMFE 9	M45x1,5	65	13	53	6	2,5	M6	0,14	HN 9	78	560	8
ZM 45	M45x1,5	65	14	59	6	2,5	M6	0,17	HN 9			
KMFE 10	M50x1,5	70	14	57,5	6	2,5	M6	0,17	HN 10	91,5	720	8
KMP 10	M50x1,5	70	14	65	6	2,5	M6	0,20	HN 10	91,5	720	18
ZM 50	M50x1,5	70	14	64	6	2,5	M6	0,19	HN 10			
KMFE 11	M55x2	75	14	64	7	3	M6	0,19	HN 11	91,5	800	8
KMFE 11x1,5	M55x1,5	75	14	64	7	3	M6	1,19	HN 11	91,5	800	8
KMP 11	M55x2	75	14	69	7	3	M8	0,19	HN 11	91,5	800	18
ZM 55	M55x2	75	16	68	7	3	M6	0,23	HN 11			
KMFE 12	M60x2	80	14	69	7	3	M6	0,20	HN 12	95	880	18
KMFE 12x1,5	M60x1,5	80	14	69	7	3	M6	0,20	HN 12	95	880	18
KMP 12	M60x2	80	15	74	7	3	M8	0,20	HN 12	95	880	18
ZM 60	M60x2	80	16	73	7	3	M6	0,25	HN 12			
KMFE 13	M65x2	85	15	76	7	3	M6	0,24	HN 13	108	1100	18



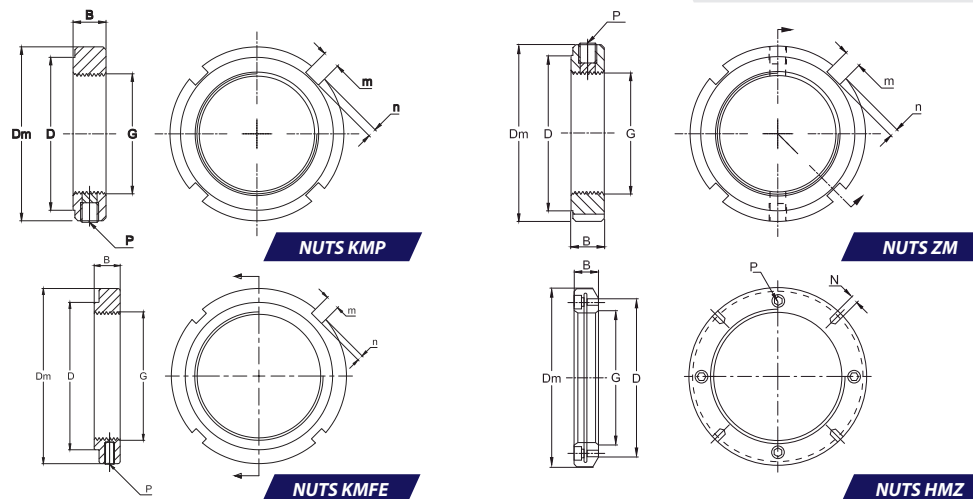
LOCK NUTS
KMP, KMFE, ZM, HMZ
 Nuts with Metric Thread Fixed
 with Screw - mm



Part Number	G*	Dm (mm)	B (mm)	D (mm)	m (mm)	n (mm)	P	Weight (Kg)	Hook Spanner	Basic Axial Static Load Capacity (kN)	Tightening Torque (Thread) Mvs (Nm)	Recommended Tightening Torque for Locking Screw (Nm)
KMFE 13x1,5	M65x1,5	85	15	76	7	3	M6	0.24	HN 13	108	1100	18
KMP 13	M65x2	85	15	79	7	3	M8	0.26	HN 13	108	1100	18
ZM 65	M65x2	85	16	78	7	3	M6	0.27	HN 13			
KMFE 14	M70x2	92	15	79	8	3.5	M6	0.28	HN 14	118	1290	18
KMP 14	M70x2	92	15	85	8	3.5	M8	0.28	HN 14	118	1290	18
ZM 70	M70x2	92	18	85	8	3.5	M8	0.36	HN 14			
KMP 15	M75x2	98	15	91	8	3.5	M8	0.32	HN 15	134	1600	18
KMFE 15	M75x2	98	16	85	8	3.5	M6	0.32	HN 15	134	1600	18
ZM 75	M75x2	98	18	90	8	3.5	M8	0.40	HN 15			
KMFE 16	M80x2	105	18	91.5	8	3.5	M8	0.48	HN 16	173	2160	18
KMP 16	M80x2	105	18	98	8	3.5	M10	0.48	HN 16	173	2160	18
ZM 80	M80x2	105	18	95	8	3.5	M8	0.46	HN 16			
KMP 17	M85x2	110	18	103	8	3.5	M10	0.52	HN 17	190	2500	35
ZM 85	M85x2	110	18	102	8	3.5	M8	0.49	HN 17			
KMFE 17	M85x2	110	19	98	8	3.5	M8	0.53	HN 17	190	2500	35
HMZ 18	M90x2	120	16	108			M5	0.60				
KMP 18	M90x2	120	18	112	10	4	M10	0.65	HN 18	216	3050	35
KMFE 18	M90x2	120	19	102	10	4	M8	0.65	HN 18	216	3050	35
ZM 90	M90x2	120	20	108	10	4	M8	0.70	HN 18			
HMZ 19	M95x2	125	17	113			M5	0.70				
KMFE 19	M95x2	125	20	110	10	4	M8	0.76	HN 19	236	3450	35
KMP 19	M95x2	125	20	117	10	4	M10	0.79	HN 19	236	3450	35
ZM 95	M95X2	125	20	113	10	4	M8	0.78	HN 19			
HMZ 20	M100x2	130	18	120			M6	0.80				
KMP 20	M100x2	130	20	122	10	4	M10	0.80	HN 20	255	4000	35
ZM 100	M100x2	130	20	120	10	4	M8	0.77	HN 20			
KMFE 20	M100x2	130	21	112	10	4	M8	0.77	HN 20	255	4000	35
HMZ 21	M105x2	140	18	126			M6	0.90				
KMFE 21	M105x2	140	21	112	12	5	M8	0.93	HN 21	290	4750	35
ZM 105	M105x2	140	22	126	12	5	M10	1.05	HN 21			
HMZ 22	M110x2	145	19	133			M6	1.00				
KMFE 22	M110x2	145	21.5	122	12	5	M8	1.00	HN 22	310	5300	35
ZM 110	M110x2	145	22	133	12	5	M10	1.09	HN 22			
HMZ 23	M115x2	150	19	137			M6	1.10				
ZM 115	M115x2	150	22	137	12	5	M10	1.13	HN 23			
HMZ 24	M120x2	155	20	138			M6	1.10				
ZM 120	M120x2	155	24	138	12	5	M10	1.28	HN 24			
KMFE 24	M120x2	155	26	130	12	5	M10	1.20	HN 24	340	6200	35
HMZ 25	M125x2	160	21	148			M6	1.30				
ZM 125	M125x2	160	24	148	12	5	M10	1.33	HN 25			



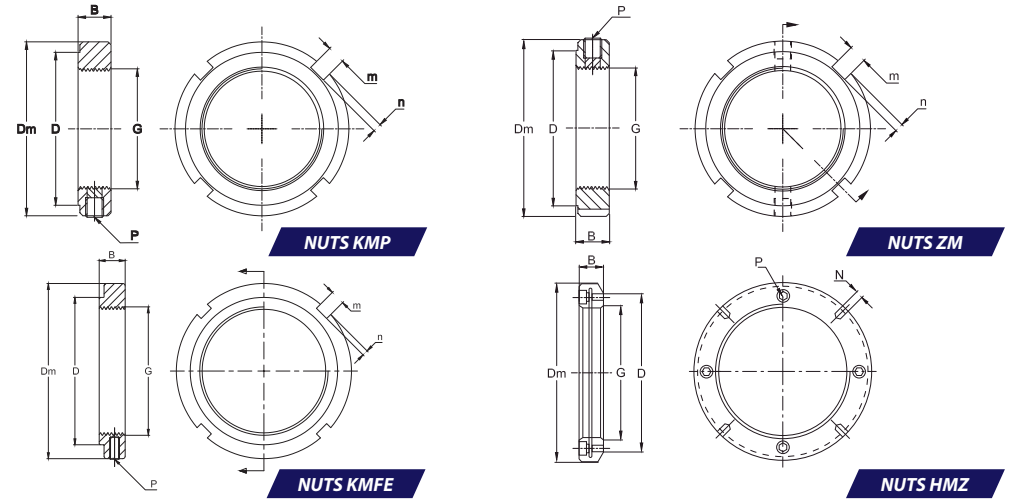
LOCK NUTS
KMP, KMFE, ZM, HMZ
 Nuts with Metric Thread Fixed with Screw - mm



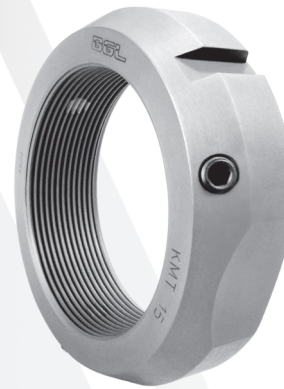
Part Number	G*	Dm (mm)	B (mm)	D (mm)	m (mm)	n (mm)	P	Weight (Kg)	Hook Spanner	Basic Axial Static Load Capacity (kN)	Tightening Torque (Thread) Mvs (Nm)	Recommended Tightening Torque for Locking Screw (Nm)
KMFE 25	M125x2	160	27	136	12	5	M10	1.33	HN 25	360	6950	35
HMZ 26	M130x2	165	21	149			M6	1.30				
ZM 130	M130x2	165	24	149	12	5	M10	1.36	HN 26			
KMFE 26	M130x2	165	28	141	12	5	M10	1.33	HN 26	365	7350	35
HMZ 27	M135x2	175	22	160			M6	1.60				
KMFE 27	M135x2	175	28	147	14	6	M10	1.33	HN 27	365	7350	35
HMZ 28	M140x2	180	22	160			M6	1.60				
ZM 140	M140x2	180	26	160	14	6	M12	1.85	HN 28			
KMFE 28	M140x2	180	28	152	14	6	M10	1.33	HN 28	420	9300	35
HMZ 29	M145x2	190	24	171			M6	2.20				
HMZ 30	M150x2	195	24	171			M6	2.20				
ZM 150	M150x2	195	26	171	14	6	M12	2.24	HN 30			
KMFE 30	M150x2	195	30	162	14	6	M10	2.17	HN 30	495	12000	35
HMZ 31	M155x3	200	25	182			M6	2.40				
HMZ 32	M160x3	210	25	182			M6	2.60				
ZM 160	M160X3	210	28	178	16	7	M12	3.08	HN 32-HN 33			
KMFE 32	M160x3	210	32	173	16	7	M10	2.60	HN 32-HN 33	540	14300	35
KMP 32	M160x3	210	32	190	16	7	M10	3.20	HN 32/33	585	14300	35
HMZ 33	M165x3	210	26	193			M8	2.80				
HMZ 34	M170x3	220	26	193			M8	2.90				
ZM 170	M170X3	220	28	189	16	7	M12	3.26	HN 34			
KMFE 34	M170x3	220	33	184	16	7	M10	1.35	HN 34	550	16300	35
HMZ 36	M180x3	230	27	203			M8	3.20				
ZM 180	M180X3	230	30	199	18	8	M12	3.63	HN 36			
KMFE 36	M180x3	230	34	194	18	8	M10	3.20	HN 36	590	18300	35
HMZ 38	M190x3	240	28	214			M8	3.50				
ZM 190	M190X3	240	30	210	18	8	M12	3.93	HN 38			
KMFE 38	M190x3	240	34	207	18	8	M10	1.43	HN 38	610	20400	35
HMZ 40	M200x3	250	29	226			M8	3.90				
ZM 200	M200X3	250	32	222	18	8	M12	4.33	HN 40			
KMFE 40	M200x3	250	34	217	18	8	M10	3.60	HN 40	625	22400	35
HMZ 3044	Tr220x4	260	30	242			M8	3.40				
HMZ 3048	Tr240x4	290	34	270			M10	5.40				
HMZ 3052	Tr260x4	310	34	290			M10	5.80				
HMZ 3056	Tr280x4	330	38	310			M10	6.90				
HMZ 3060	Tr300x4	360	42	336			M10	10.00				
HMZ 3064	Tr320x5	380	42	356			M10	10.60				
HMZ 3068	Tr340x5	400	45	376			M12	12.10				
HMZ 3072	Tr360x5	420	45	394			M12	12.50				
HMZ 3076	Tr380x5	450	48	422			M12	16.70				



LOCK NUTS
KMP, KMFE, ZM, HMZ
 Nuts with Metric Thread Fixed
 with Screw - mm



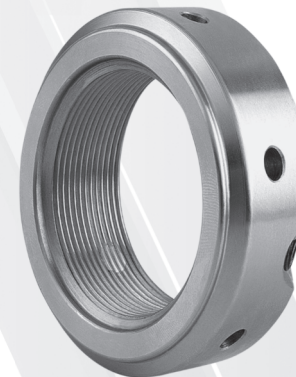
Part Number	G*	Dm (mm)	B (mm)	D (mm)	m (mm)	n (mm)	P	Weight (Kg)	Hook Spanner	Basic Axial Static Load Capacity (kN)	Tightening Torque (Thread) Mvs (Nm)	Recommended Tightening Torque for Locking Screw (Nm)
HMZ 3080	Tr400x5	470	52	442			M16	19.10				
HMZ 3084	Tr420x5	490	52	462			M16	19.80				
HMZ 3088	Tr440x5	520	60	490			M16	27.80				
HMZ 3092	Tr460x5	540	60	510			M16	29.10				
HMZ 3096	Tr480x5	560	60	530			M16	30.10				
HMZ 30/500	Tr500x5	580	68	550			M20	35.70				
HMZ 30/530	Tr530x6	630	68	590			M20	46.90				
HMZ 30/560	Tr560x6	650	75	610			M20	48.50				
HMZ 30/600	Tr600x6	700	75	660			M20	58.70				
HMZ 30/630	Tr630x6	730	75	690			M20	61.20				
HMZ 30/670	Tr670x6	780	80	740			M20	77.50				
HMZ 30/710	Tr710x7	830	90	780			M20	99.50				
HMZ 30/750	Tr750x7	870	90	820			M20	104.50				
HMZ 30/800	Tr800x7	920	90	870			M20	111.30				
HMZ 30/850	Tr850x7	980	90	925			M20	118.70				
HMZ 30/900	Tr900x7	1030	100	975			M24	141.80				
HMZ 30/950	Tr950x8	1080	100	1025			M24	150.20				
HMZ 30/1000	Tr1000x8	1140	100	1085			M24	173.30				
HMZ 30/1060	Tr1060x8	1200	100	1145			M24	183.80				
HMZ 30/1120	Tr1120x8	1260	100	1205			M24	194.30				
HMZ 30/1180	Tr1180x8	1320	100	1265			M24	205.80				
HMZ 30/1250	Tr1250x8	1390	110	1335			M24	244.70				
HMZ 30/1320	Tr1320x8	1460	110	1405			M24	257.30				
HMZ 30/1400	Tr1400x8	1540	110	1485			M24	272.00				
HMZ 30/1500	Tr1500x8	1650	110	1595			M24	311.90				



**NUT KMT 0 TO
KMT 15**



**NUT KMT 16 TO
KMT 68**



NUT KMTA

PRECISION NUTS KMT, KMTA

KMT and KMTA precision lock nuts are used to mount bearings to machinery and equipment requiring extreme precision, such as lathes, milling machines, engines, grinding wheels, blocking valves and devices such as spindles and ball screws.

These precision lock nuts have three locking pins equally distributed around their circumference, these pins are pressed against the shaft by scrub bolts. The end face of each pin is machined to match the shaft thread and avoid axial loads, enabling locking these nuts on the exact position required.

The main difference between KMT and KMTA is the form of nut tightening. The KMT can be mounted with a hook spanner or a fork wrench, while KMTA is assembled with a head wrench.

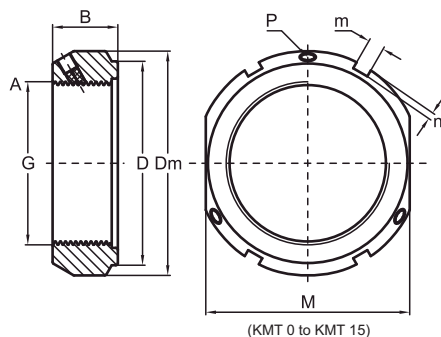
Material: Carbon steel.

Surface treatment: Phosphate coating.

Optional: Stainless steel.

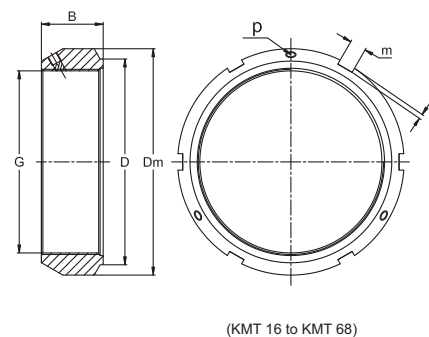


PRECISION NUTS



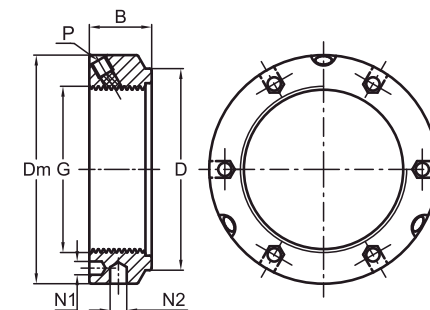
(KMT 0 to KMT 15)

KMT



(KMT 16 to KMT 68)

KMT



KMTA

Part Number	G*	Dm (mm)	D (mm)	B (mm)	m (mm)	n (mm)	M (mm)	N1 (mm)	N2 (mm)	P	Fixing Torque (Nm)	Weight (Kg)	Hook Spanner	Basic Axial Static Load Capacity (KN)
KMT 0	M10x0,75	28	23	14	4	2	24	-	-	M5	4,5	0.045	HN 3	35
KMT 1	M12x1	30	25	14	4	2	27	-	-	M5	4,5	0.055	HN 3	40
KMT 2	M15x1	33	28	16	4	2	30	-	-	M5	4,5	0.07	HN 4	60
KMT 3	M17x1	37	33	18	5	2	34	-	-	M6	8	0.1	HN 5	80
KMT 4	M20x1	40	35	18	5	2	36	-	-	M6	8	0.105	HN 5	90
KMT 5	M25x1,5	44	39	20	5	2	41	-	-	M6	8	0.135	HN 6	130
KMTA 5	M25x1,5	42	26	20	-	-	-	4.3	4	M6	8	0.125	-	130
KMT 6	M30x1,5	49	44	20	5	2	46	-	-	M6	8	0.15	HN 6	160
KMTA 6	M30x1,5	48	32	20	-	-	-	4.3	5	M6	8	0.15	-	160
KMTA 7	M35x1,5	53	38	20	-	-	-	4.3	5	M6	8	0.175	-	190
KMT 7	M35x1,5	54	49	22	5	2	50	-	-	M6	8	0.19	HN 7	190
KMT 8	M40x1,5	65	59	22	6	2.5	60	-	-	M8	18	0.27	HN 9	210
KMTA 8	M40x1,5	58	42	22	-	-	-	4.3	5	M6	8	0.2	-	210
KMT 9	M45x1,5	70	64	22	6	2.5	65	-	-	M8	18	0.29	HN 10	240
KMTA 9	M45x1,5	68	48	22	-	-	-	4.3	6	M6	8	0.285	-	240
KMTA 10	M50x1,5	70	52	24	-	-	-	4.3	6	M6	8	0.29	-	300
KMT 10	M50x1,5	75	68	25	7	3	70	-	-	M8	18	0.4	HN 11	300
KMTA 11	M55x1,5	75	58	24	-	-	-	4.3	6	M6	8	0.315	-	340
KMT 11	M55x2	85	78	25	7	3	80	-	-	M8	18	0.49	HN 13	340
KMTA 12	M60x1,5	84	62	24	-	-	-	5.3	6	M8	18	0.42	-	380
KMT 12	M60x2	90	82	26	8	3.5	85	-	-	M8	18	0.545	HN 13	380
KMTA 13	M65x1,5	88	68	25	-	-	-	5.3	6	M8	18	0.44	-	460
KMT 13	M65x2	95	87	28	8	3.5	90	-	-	M8	18	0.635	HN 14	460
KMTA 14	M70x1,5	95	72	26	-	-	-	5.3	8	M8	18	0.58	-	490
KMT 14	M70x2	100	92	28	8	3.5	95	-	-	M8	18	0.68	HN 15	490
KMTA 15	M75x1,5	100	77	26	-	-	-	6.4	8	M8	18	0.55	-	520
KMT 15	M75x2	105	97	28	8	3.5	100	-	-	M8	18	0.72	HN 16	520
KMTA 16	M80x1,5	110	83	30	-	-	-	6.4	8	M8	18	0.93	-	620
KMT 16	M80x2	110	100	32	8	3.5	-	-	-	M8	18	0.6	HN 17	620
KMT 17	M85x2	120	110	32	10	4	-	-	-	M10	35	1.1	HN 18	650
KMTA 17	M85x2	115	88	32	-	-	-	6.4	8	M10	35	1.05	-	650
KMT 18	M90x2	125	115	32	10	4	-	-	-	M10	35	1.265	HN 19	680
KMTA 18	M90x2	120	93	32	-	-	-	6.4	8	M10	35	1.125	-	680
KMT 19	M95x2	130	120	32	10	4	-	-	-	M10	35	1.205	HN 20	710
KMTA 19	M95x2	125	98	32	-	-	-	6.4	8	M10	35	1.07	-	710
KMT 20	M100x2	135	125	32	10	4	-	-	-	M10	35	1.26	HN 20	740
KMTA 20	M100x2	130	103	32	-	-	-	6.4	8	M10	35	1.13	-	740
KMT 22	M110x2	145	134	32	10	4	-	-	-	M10	35	1.505	HN 22	800
KMTA 22	M110x2	140	112	32	-	-	-	6.4	8	M10	35	1.28	-	800
KMT 24	M120x2	155	144	32	10	4	-	-	-	M10	35	1.625	HN 24	860

Part Number	G*	Dm (mm)	D (mm)	B (mm)	m (mm)	n (mm)	M (mm)	N1 (mm)	N2 (mm)	P	Fixing Torque (Nm)	Weight (Kg)	Hook Spanner	Basic Axial Static Load Capacity (KN)
KMTA 24	M120x2	155	122	32	-	-	-	6.4	8	M10	35	1.725	HN 26	860
KMTA 26	M130x3	165	132	30	-	-	-	6.4	8	M10	35	2	HN 27	920
KMT 26	M130x2	165	154	32	12	5	-	-	-	M10	35	1.57	-	920
KMT 28	M140x2	175	164	32	14	5	-	-	-	M10	35	1.85	HN 28	980
KMTA 28	M140x3	180	142	32	-	-	-	6.4	10	M10	35	2.125	-	980
KMT 30	M150x2	185	174	32	14	5	-	-	-	M10	35	1.795	-	1040
KMTA 30	M150x3	190	152	32	-	-	-	6.4	10	M10	35	2.6	HN 30	1040
KMTA 32	M160x3	205	162	30	-	-	-	8.4	10	M10	35	2.715	HN 31	1100
KMT 32	M160x3	195	184	32	14	5	-	-	-	M10	35	1.89	-	1100
KMT 34	M170x3	205	194	32	14	5	-	-	-	M10	35	2.035	HN 32-HN 33	1160
KMTA 34	M170x3	215	172	32	-	-	-	8.4	10	M10	35	3.21	-	1160
KMT 36	M180x3	215	204	32	16	5	-	-	-	M10	35	2.4	HN 34	1220
KMTA 36	M180x3	230	182	32	-	-	-	8.4	10	M10	35	3.44	-	1220
KMT 38	M190x3	225	214	32	16	5	-	-	-	M10	35	2.255	HN 36	1280
KMTA 38	M190x3	240	192	32	-	-	-	8.4	10	M10	35	4.1	-	1280
KMT 40	M200x3	235	224	32	18	5	-	-	-	M10	35	2.355	HN 40	1340
KMTA 40	M200x3	245	202	32	-	-	-	8.4	10	M10	35	3.85	HN 44	1340
KMT 44	Tr 220x4	265	254	36	20	10	-	-	-	M10	35	4.2	-	-
KMT 48	Tr 240x4	290	279	38	20	10	-	-	-	M12	60	5.4	-	-
KMT 52	Tr 260X4	310	299	38	20	10	-	-	-	M12	60	6	-	-
KMT 56	Tr 280x4	330	319	40	24	12	-	-	-	M12	60	7.2	-	-
KMT 60	Tr 300x4	360	349	42	24	12	-	-	-	M12	60	9.1	-	-
KMT 64	Tr 320x5	390	379	45	24	12	-	-	-	M12	60	12.7	-	-
KMT 68	Tr 340x5	410	399	48	24	12	-	-	-	M12	60	15.4	-	-

HYDRAULIC NUTS HMVE



The hydraulic nut is a tool used to help mounting and dismounting bearings on tapered sleeves or shafts.

It facilitates the job by allowing for assembling with no impact, thus contributing to extend the working life of the set, be it an adapter or a withdrawal sleeve. Dismounting bearings mounted on sleeves is also often a difficult and time-consuming job. Using a manual hydraulic pump to pump the oil into the nut will make the piston to be pushed out with a force, which is sufficient to move the sleeve to perform the heavy weight. The mounting and dismounting time is shortened a lot in comparison with the traditional methods using a wrench and a hammer.

Material: Steel SAE 1045.

The HMV ...E Hydraulic Nut consists of a threaded body (with dial indicator housing and M6 nylon screw for fixing), a piston, a plug and a washer, a straight head wrench, O-ring kit and other spare parts.

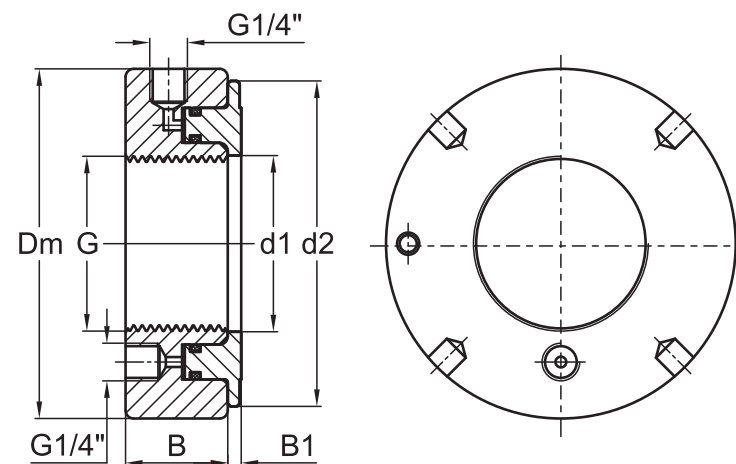
Note: The dial indicator and the quick coupling nipple ¼ BSP are not included.

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HYDRAULIC NUTS

HMV ...E - Metric Thread - mm

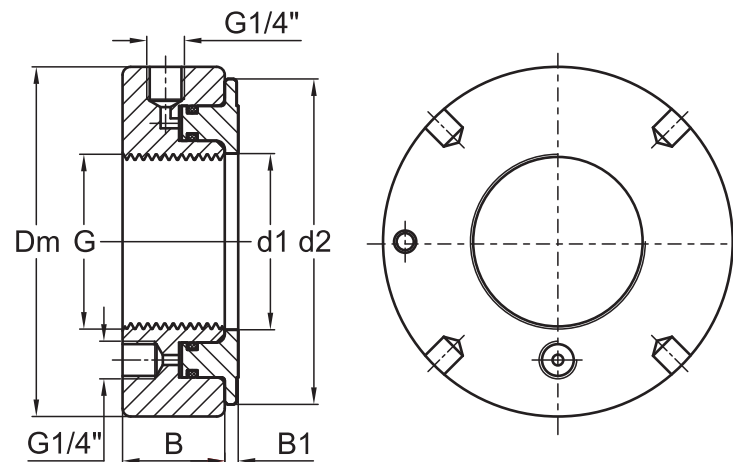


Part Number	G*	d1 (mm)	d2 (mm)	Dm (mm)	B (mm)	B1 (mm)	Maximum Axial Displacement	Oil Injection Thread	Weight (Kg)	O-ring	Straight Pin Spanner	Nylon Screw	Hydraulic Pump
HMV 10E	M50x1,5	50.5	104	114	38	4	5	G1/4"	2.54	ORING 10	CPR 10	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 11E	M55x2	55.5	109	120	38	4	5	G1/4"	2.76	ORING 11	CPR 10	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 11X1.5E	M55x1,5	55.5	109	120	38	4	5	G1/4"	2.76	ORING 11	CPR 10	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 12E	M60x2	60.5	115	125	38	5	5	G1/4"	2.99	ORING 12	CPR 10	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 12X1.5E	M60x1,5	60.5	115	125	38	5	5	G1/4"	2.99	ORING 12	CPR 10	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 13E	M65x2	65.5	121	130	38	5	5	G1/4"	3.16	ORING 13	CPR 10	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 13X1.5E	M65x1,5	65.5	121	130	38	5	5	G1/4"	3.16	ORING 13	CPR 10	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 14E	M70x2	70.5	127	135	38	5	5	G1/4"	3.33	ORING 14	CPR 10	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 15E	M75x2	75.5	132	140	38	5	5	G1/4"	3.49	ORING 15	CPR 10	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 16E	M80x2	80.5	137	146	38	5	5	G1/4"	3.72	ORING 16	CPR 10	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 17E	M85x2	85.5	142	150	38	5	5	G1/4"	3.82	ORING 17	CPR 10	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 18E	M90x2	90.5	147	156	38	5	5	G1/4"	4.05	ORING 18	CPR 10	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 19E	M95x2	95.5	153	162	38	5	5	G1/4"	4.3	ORING 19	CPR 10	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 20E	M100x2	100.5	158	166	38	6	5	G1/4"	4.49	ORING 20	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 21E	M105x2	105.5	163	172	38	6	5	G1/4"	4.73	ORING 21	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 22E	M110x2	110.5	169	178	38	6	5	G1/4"	5	ORING 22	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 23E	M115x2	115.5	174	182	38	6	5	G1/4"	5.09	ORING 23	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 24E	M120x2	120.5	179	188	38	6	5	G1/4"	5.35	ORING 24	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 25E	M125x2	125.5	184	192	38	6	5	G1/4"	5.44	ORING 25	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 26E	M130x2	130.5	190	198	38	6	5	G1/4"	5.71	ORING 26	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 27E	M135x2	135.5	195	204	38	6	5	G1/4"	5.97	ORING 27	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 28E	M140x2	140.5	200	208	38	7	5	G1/4"	6.18	ORING 28	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 29E	M145x2	145.5	206	214	39	7	5	G1/4"	6.77	ORING 29	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 30E	M150x2	150.5	211	220	39	7	5	G1/4"	7.07	ORING 30	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 31E	M155x3	155.5	218	226	39	7	5	G1/4"	7.47	ORING 31	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 32E	M160x3	160.5	224	232	40	7	6	G1/4"	7.97	ORING 32	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 33E	M165x3	165.5	229	238	40	7	6	G1/4"	8.29	ORING 33	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 34E	M170x3	170.5	235	244	41	7	6	G1/4"	8.82	ORING 34	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 36E	M180x3	180.5	247	256	41	7	6	G1/4"	9.54	ORING 36	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 38E	M190x3	191.0	259	270	42	8	7	G1/4"	10.95	ORING 38	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 40E	M200x3	201.0	271	282	43	8	8	G1/4"	12	ORING 40	CPR 14	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 41E	Tr 205x4	207.0	276	288	43	8	8	G1/4"	12.48	ORING 41	CPR 14	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 42E	Tr 210x4	212.0	282	294	43	8	9	G1/4"	13.18	ORING 42	CPR 14	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 43E	Tr 215x4	217.0	287	300	43	8	9	G1/4"	13.6	ORING 43	CPR 14	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 44E	Tr 220x4	222.0	293	306	43	8	9	G1/4"	14.06	ORING 44	CPR 14	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 45E	Tr 225x4	227.0	300	312	45	8	9	G1/4"	14.83	ORING 45	CPR 14	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 46E	Tr 230x4	232.0	305	318	45	8	9	G1/4"	15.28	ORING 46	CPR 14	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 47E	Tr 235x4	237.0	311	326	46	8	10	G1/4"	16.43	ORING 47	CPR 14	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 48E	Tr 240x4	242.0	316	330	46	9	10	G1/4"	16.79	ORING 48	CPR 14	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8



HYDRAULIC NUTS

HMV ...E - Metric Thread - mm



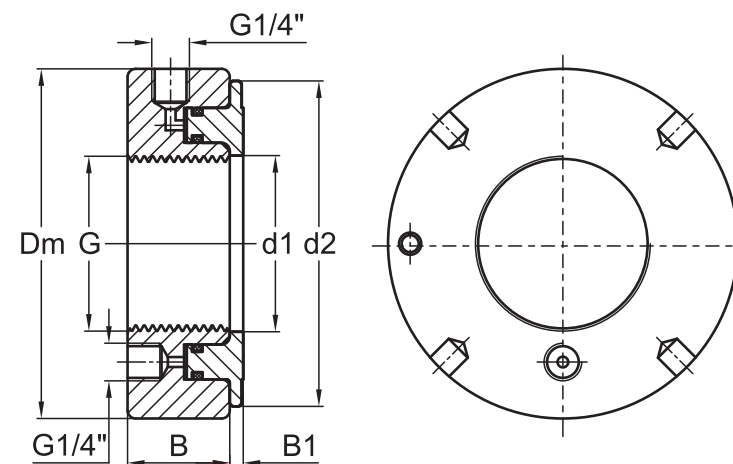
Part Number	G*	d1 (mm)	d2 (mm)	Dm (mm)	B (mm)	B1 (mm)	Maximum Axial Displacement	Oil Injection Thread	Weight (Kg)	O-ring	Straight Pin Spanner	Nylon Screw	Hydraulic Pump
HMV 50E	Tr 250x4	252.0	329	342	46	9	10	G1/4"	17.87	ORING 50	CPR 14	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 52E	Tr 260x4	262.0	341	356	47	9	11	G1/4"	19.69	ORING 52	CPR 14	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 54E	Tr 270x4	272.0	352	368	48	9	12	G1/4"	21.17	ORING 54	CPR 14	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 56E	Tr 280x4	282.0	363	380	49	9	12	G1/4"	22.71	ORING 56	CPR 14	PARAF M6x17N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 58E	Tr 290x4	292.0	375	390	49	9	13	G1/4"	23.49	ORING 58	CPR 14	PARAF M6x17N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 60E	Tr 300x4	302.0	386	404	50	10	14	G1/4"	26.41	ORING 60	CPR 16	PARAF M6x17N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 62E	Tr 310x5	312.0	397	416	52	10	14	G1/4"	28.38	ORING 62	CPR 16	PARAF M6x17N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 64E	Tr 320x5	322.0	409	428	53	10	14	G1/4"	36.4	ORING 64	CPR 16	PARAF M6x17N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 66E	Tr 330x5	332.0	419	438	53	10	14	G1/4"	31.11	ORING 66	CPR 16	PARAF M6x17N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 68E	Tr 340x5	342.0	430	450	54	10	14	G1/4"	38.8	ORING 68	CPR 16	PARAF M6x17N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 69E	Tr 345x5	347.0	436	456	54	10	14	G1/4"	33.85	ORING 69	CPR 16	PARAF M6x17N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 70E	Tr 350x5	352.0	442	464	56	10	14	G1/4"	36.37	ORING 70	CPR 16	PARAF M6x17N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 72E	Tr 360x5	362.0	455	472	56	10	15	G1/4"	36.8	ORING 72	CPR 16	PARAF M6x17N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 73E	Tr 365x5	367.0	460	482	56	11	15	G1/4"	39.92	ORING 73	CPR 18	PARAF M6x17N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 74E	Tr 370x5	372.0	466	486	56	11	16	G1/4"	40.13	ORING 74	CPR 18	PARAF M6x17N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 76E	Tr 380x5	382.0	476	498	58	11	16	G1/4"	41.9	ORING 76	CPR 18	PARAF M6x17N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 77E	Tr 385x5	387.0	483	504	58	11	16	G1/4"	42.85	ORING 77	CPR 18	PARAF M6x17N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 80E	Tr 400x5	402.0	499	522	60	11	17	G1/4"	44.4	ORING 80	CPR 18	PARAF M6x17N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 82E	Tr 410x5	412.0	510	534	61	11	17	G1/4"	49.93	ORING 82	CPR 18	PARAF M6x20N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 84E	Tr 420x5	422.0	522	546	61	11	17	G1/4"	51.93	ORING 84	CPR 18	PARAF M6x20N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 86E	Tr 430x5	432.0	532	556	62	11	17	G1/4"	53.78	ORING 86	CPR 18	PARAF M6x20N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 88E	Tr 440x5	442.0	543	566	62	12	17	G1/4"	55.55	ORING 88	CPR 18	PARAF M6x20N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 90E	Tr 450x5	452.0	554	580	64	12	17	G1/4"	60.09	ORING 90	CPR 18	PARAF M6x20N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 92E	Tr 460x5	462.0	565	590	64	12	17	G1/4"	61.35	ORING 92	CPR 18	PARAF M6x20N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 94E	Tr 470x5	472.0	576	602	65	12	18	G1/4"	57.85	ORING 94	CPR 20	PARAF M6x20N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 96E	Tr 480x5	482.0	578	612	65	12	19	G1/4"	65.69	ORING 96	CPR 20	PARAF M6x20N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 98E	Tr 490x5	492.0	597	624	66	12	19	G1/4"	68.78	ORING 98	CPR 20	PARAF M6x20N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 100E	Tr 500x5	502.0	609	636	67	12	19	G1/4"	72.14	ORING 100	CPR 20	PARAF M6x20N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 102E	Tr 510x6	512.0	624	648	68	12	20	G1/4"	74	ORING 102	CPR 20	PARAF M6x20N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 104E	Tr 520x6	522.0	634	658	68	13	20	G1/4"	75	ORING 104	CPR 20	PARAF M6x20N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 106E	Tr 530x6	532.0	645	670	69	13	21	G1/4"	81.8	ORING 106	CPR 20	PARAF M6x20N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 108E	Tr 540x6	542.0	657	682	69	13	21	G1/4"	81	ORING 108	CPR 20	PARAF M6x20N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 110E	Tr 550x6	552.0	667	693	70	13	21	G1/4"	100.4	ORING 110	CPR 20	PARAF M6x20N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 112E	Tr 560x6	562.0	678	704	71	13	22	G1/4"	91.2	ORING 112	CPR 20	PARAF M6x20N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 114E	Tr 570x6	572.0	689	716	72	13	23	G1/4"	91	ORING 114	CPR 20	PARAF M6x20N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 116E	Tr 580x6	582.0	699	726	72	13	23	G1/4"	96.36	ORING 116	CPR 20	PARAF M6x20N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 120E	Tr 600x6	602.0	721	748	73	13	23	G1/4"	102.06	ORING 120	CPR 22	PARAF M6x22N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 125E	Tr 625x6	628.0	750	775	74	14	23	G1/4"	109.89	ORING 125	CPR 22	PARAF M6x22N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 126E	Tr 630x6	632.0	754	782	74	14	23	G1/4"	112.04	ORING 126	CPR 22	PARAF M6x22N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 130E	Tr 650x6	652.0	775	804	75	14	23	G1/4"	115	ORING 130	CPR 22	PARAF M6x22N	BH 100-0.7 / BH 160 / BH 160-4.8

* Example of thread part number: TR 300 x 4, TR: Trapezoidal metric thread, 300: Thread diameter, 4: Thread pitch.

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HYDRAULIC NUTS

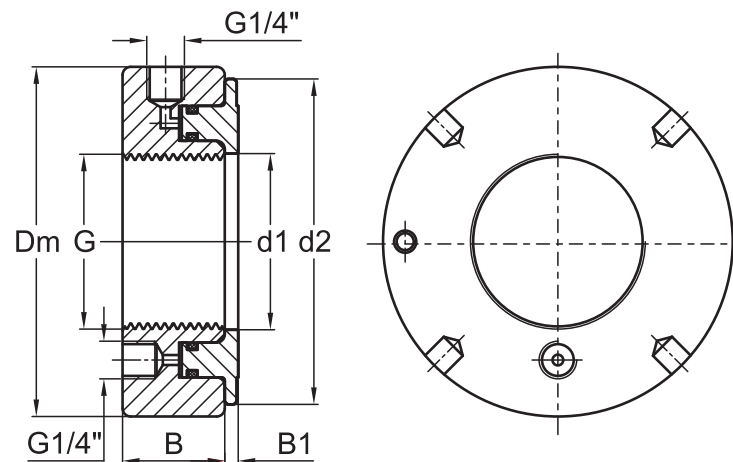
HMV ...E - Metric Thread - mm



Part Number	G*	d1 (mm)	d2 (mm)	Dm (mm)	B (mm)	B1 (mm)	Maximum Axial Displacement	Oil Injection Thread	Weight (Kg)	O-ring	Straight Pin Spanner	Nylon Screw	Hydraulic Pump
HMV 134E	Tr 670x6	672.0	796	826	75	14	24	G1/4"	123.03	ORING 134	CPR 22	PARAF M6x22N	BH 100-0.7 / BH 160 / BH 160-4.8
HMV 138E	Tr 690x6	692.0	819	848	77	14	25	G1/4"	127	ORING 138	CPR 22	PARAF M6x22N	BH 160 / BH 160-4.8
HMV 142E	Tr 710x7	712.0	840	870	78	15	25	G1/4"	120	ORING 142	CPR 22	PARAF M6x22N	BH 160 / BH 160-4.8
HMV 150E	Tr 750x7	752.0	883	912	79	15	25	G1/4"	150.79	ORING 150	CPR 22	PARAF M6x22N	BH 160 / BH 160-4.8
HMV 155E	Tr 775x7	777.0	936	965	80	16	25	G1/4"	166.34	ORING 155	CPR 22	PARAF M6x22N	BH 160 / BH 160-4.8
HMV 160E	Tr 800x7	802.0	936	965	80	16	25	G1/4"	166.34	ORING 160	CPR 22	PARAF M6x22N	BH 160 / BH 160-4.8
HMV 170E	Tr 850x7	852.0	990	1020	83	16	26	G1/4"	181	ORING 170	CPR 24	PARAF M6x22N	BH 160 / BH 160-4.8
HMV 180E	Tr 900x7	902.0	1043	1075	86	17	30	G1/4"	205	ORING 180	CPR 24	PARAF M6x22N	BH 160 / BH 160-4.8
HMV 190E	Tr 950x8	952.0	1097	1126	86	17	30	G1/4"	218	ORING 190	CPR 24	PARAF M6x22N	BH 160 / BH 160-4.8
HMV 200E	Tr 1000x8	1002.0	1150	1180	88	17	34	G1/4"	244	ORING 200	CPR 24	PARAF M6x22N	BH 160 / BH 160-4.8



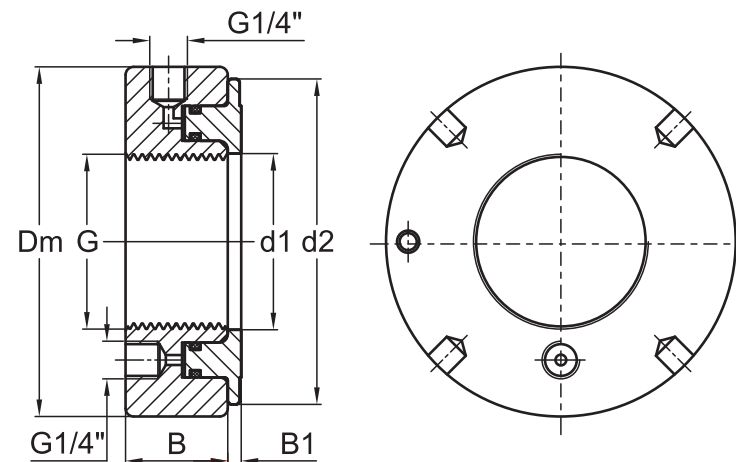
HYDRAULIC NUTS
HMVC ...E - Inch Thread



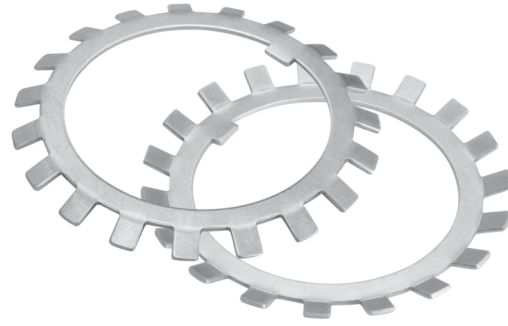
Part Number	G*	d1 (mm)	d2 (mm)	Dm (mm)	B (mm)	B1 (mm)	Maximum Axial Displacement	Oil Injection Thread	Weight (Kg)	O-ring	Straight Pin Spanner	Nylon Screw	Hydraulic Pump
HMVC 10E	1.967"x18F	50.5	104	114	38	4	5	G1/4"	2.54	ORING 10	CPR 10	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 11E	2.157"x18F	55.5	109	120	38	4	5	G1/4"	2.8	ORING 11	CPR 10	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 12E	2.360"x18F	60.5	115	125	38	5	5	G1/4"	3.006	ORING 12	CPR 10	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 13E	2.548"x18F	65.5	121	130	38	5	5	G1/4"	3.16	ORING 13	CPR 10	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 14E	2.751"x18F	70.5	127	135	38	5	5	G1/4"	3.33	ORING 14	CPR 10	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 15E	2.933"x12F	75.5	132	140	38	5	5	G1/4"	3.49	ORING 15	CPR 10	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 16E	3.137"x12F	80.5	137	146	38	5	5	G1/4"	3.72	ORING 16	CPR 10	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 17E	3.340"x12F	85.5	142	150	38	5	5	G1/4"	3.82	ORING 17	CPR 10	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 18E	3.527"x12F	90.5	147	156	38	5	5	G1/4"	4	ORING 18	CPR 10	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 19E	3.730"x12F	95.5	153	162	38	5	5	G1/4"	4.3	ORING 19	CPR 10	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 20E	3.918"x12F	100.5	158	166	38	6	5	G1/4"	4.49	ORING 20	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 21E	4.122"x12F	105.5	163	172	38	6	5	G1/4"	4.73	ORING 21	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 22E	4.325"x12F	110.5	169	178	38	6	5	G1/4"	5	ORING 22	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 24E	4.716"x12F	120.5	179	188	38	6	5	G1/4"	5.35	ORING 24	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 26E	5.106"x12F	130.5	190	198	38	6	5	G1/4"	5.71	ORING 26	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 28E	5.497"x12F	140.5	200	208	38	7	5	G1/4"	6.18	ORING 28	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 30E	5.888"x12F	150.5	211	220	39	7	5	G1/4"	7.07	ORING 30	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 32E	6.284"x8F	160.5	224	232	40	7	6	G1/4"	7.97	ORING 32	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 34E	6.659"x8F	170.5	235	244	41	7	6	G1/4"	8.8	ORING 34	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 36E	7.066"x8F	180.5	247	256	41	7	6	G1/4"	9.4	ORING 36	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 38E	7.472"x8F	191.0	259	270	42	8	7	G1/4"	10.95	ORING 38	CPR 12	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 40E	7.847"x8F	201.0	271	282	43	8	8	G1/4"	12	ORING 40	CPR 14	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 44E	8.628"x8F	222.0	293	306	43	8	9	G1/4"	14.06	ORING 44	CPR 14	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 48E	9.442"x6F	242.0	316	330	46	9	10	G1/4"	16.79	ORING 48	CPR 14	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 52E	10.192"x6F	262.0	341	356	47	9	11	G1/4"	19.8	ORING 52	CPR 14	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 54E	10.600"x6F	272.0	352	368	48	9	12	G1/4"	21.17	ORING 54	CPR 14	PARAF M6x12N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 56E	11.004"x6F	282.0	363	380	49	9	12	G1/4"	22.71	ORING 56	CPR 14	PARAF M6x17N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 60E	11.785"x6F	302.0	386	404	50	10	14	G1/4"	26.2	ORING 60	CPR 16	PARAF M6x17N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 64E	12.562"x6F	322.0	409	428	53	10	14	G1/4"	30.6	ORING 64	CPR 16	PARAF M6x17N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 66E	12.942"x6F	332.0	419	438	53	10	14	G1/4"	31.11	ORING 66	CPR 16	PARAF M6x17N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 68E	13.339"x5F	342.0	430	450	54	10	14	G1/4"	33.09	ORING 68	CPR 16	PARAF M6x17N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 72E	14.170"x5F	362.0	455	472	56	10	15	G1/4"	36.8	ORING 72	CPR 16	PARAF M6x17N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 76E	14.957"x5F	382.0	476	498	58	11	16	G1/4"	41.9	ORING 76	CPR 18	PARAF M6x17N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 80E	15.745"x5F	402.0	499	522	60	11	17	G1/4"	47.35	ORING 80	CPR 18	PARAF M6x17N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 84E	16.532"x5F	422.0	522	546	61	11	17	G1/4"	51.93	ORING 84	CPR 18	PARAF M6x20N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 88E	17.319"x5F	442.0	543	566	62	12	17	G1/4"	55.55	ORING 88	CPR 18	PARAF M6x20N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 92E	18.107"x5F	462.0	565	590	64	12	17	G1/4"	61.35	ORING 92	CPR 18	PARAF M6x20N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 96E	18.894"x5F	482.0	578	612	65	12	19	G1/4"	65.69	ORING 96	CPR 20	PARAF M6x20N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 100E	19.682"x5F	502.0	609	636	67	12	19	G1/4"	72.14	ORING 100	CPR 20	PARAF M6x20N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 106E	20.867"x4F	532.0	645	670	69	13	21	G1/4"	81.6	ORING 106	CPR 20	PARAF M6x20N	BH 100-0.7 / BH 160 / BH 160-4.8



HYDRAULIC NUTS
HMVC ...E - Inch Thread



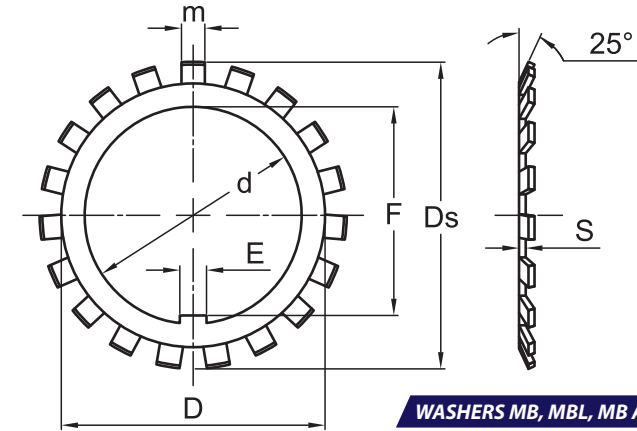
Part Number	G*	d1 (mm)	d2 (mm)	Dm (mm)	B (mm)	B1 (mm)	Maximum Axial Displacement	Oil Injection Thread	Weight (Kg)	O-ring	Straight Pin Spanner	Nylon Screw	Hydraulic Pump
HMVC 112E	22.048"x4F	562.0	678	704	71	13	22	G1/4"	90.95	ORING 112	CPR 20	PARAF M6x20N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 120E	23.623"x4F	602.0	721	748	73	13	23	G1/4"	102.06	ORING 120	CPR 22	PARAF M6x22N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 126E	24.804"x4F	632.0	754	782	74	14	23	G1/4"	112.04	ORING 126	CPR 22	PARAF M6x22N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 134E	26.379"x4F	672.0	796	826	75	15	24	G1/4"	123.03	ORING 134	CPR 22	PARAF M6x22N	BH 100-0.7 / BH 160 / BH 160-4.8
HMVC 142E	27.961"x3F	712.0	840	870	78	15	25	G1/4"	135	ORING 142	CPR 22	PARAF M6x22N	BH 160 / BH 160-4.8
HMVC 150E	29.536"x3F	752.0	883	912	79	15	25	G1/4"	150.79	ORING 150	CPR 22	PARAF M6x22N	BH 160 / BH 160-4.8
HMVC 160E	31.504"x3F	802.0	936	965	80	16	25	G1/4"	166.34	ORING 160	CPR 24	PARAF M6x22N	BH 160 / BH 160-4.8
HMVC 170E	33.473"x3F	852.0	990	1020	83	16	26	G1/4"	181	ORING 170	CPR 24	PARAF M6x22N	BH 160 / BH 160-4.8
HMVC 180E	35.441"x3F	902.0	1043	1075	86	17	30	G1/4"	205	ORING 180	CPR 24	PARAF M6x22N	BH 160 / BH 160-4.8
HMVC 190E	37.410"x3F	952.0	1097	1126	86	17	30	G1/4"	218	ORING 190	CPR 24	PARAF M6x22N	BH 160 / BH 160-4.8



LOCKWASHERS
MB, MBL, MB A
Washer in mm
(*Straight internal tooth*)

This is the locking accessory for KM nuts and always supplements adapter sleeves when assembled with these nuts.

Material: Carbon steel. Optionally of stainless steel.



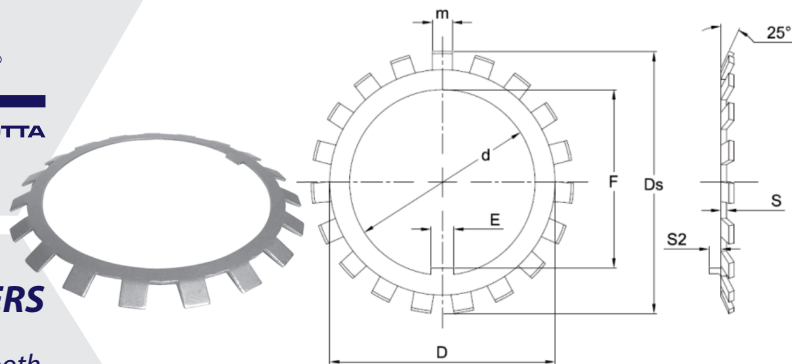
WASHERS MB, MBL, MB A

Part Number	d (mm)	Ds (mm)	D (mm)	S (mm)	E (mm)	F (mm)	m (mm)	Weight (Kg)
MB 0	10	21	13.5	1.00	3	8.5	3	0.01
MB 1	12	25	17	1.00	3	10.5	3	0.02
MB 1 A	12	25	17	1.20	3	10.5	3	0.02
MB 2	15	28	21	1.00	4	13.5	4	0.02
MB 2 A	15	28	21	1.20	4	13.5	4	0.03
MB 3	17	32	24	1.00	4	15.5	4	0.002
MB 3 A	17	32	24	1.20	4	15.5	4	0.03
MB 4	20	36	26	1.00	4	18.5	4	0.04
MB 4 A	20	36	26	1.20	4	18.5	4	0.05
MB 5	25	42	32	1.20	5	23	5	0.05
MB 5 A	25	42	32	2.00	5	23	5	0.09
MB 6	30	49	38	1.20	5	27.5	5	0.06
MB 6 A	30	49	38	2.00	5	27.5	5	0.01
MB 7	35	57	44	1.20	6	32.5	5	0.01
MB 7 A	35	57	44	2.00	6	32.5	5	0.02
MB 8	40	62	50	1.20	6	37.5	6	0.01
MB 8 A	40	62	50	2.00	6	37.5	6	0.02
MB 9	45	69	56	1.20	6	42.5	6	0.01
MB 9 A	45	69	56	2.00	6	42.5	6	0.02
MB 10	50	74	61	1.20	6	47.5	6	0.01
MB 10 A	50	74	61	2.50	6	47.5	6	0.03
MB 11	55	81	67	1.50	8	52.5	7	0.02
MB 11 A	55	81	67	2.50	8	52.5	7	0.04
MB 12	60	86	73	1.50	8	57.5	7	0.02
MB 12 A	60	86	73	2.50	8	57.5	7	0.04
MB 13	65	92	79	1.50	8	62.5	7	0.03
MB 13 A	65	92	79	2.50	8	62.5	7	0.05
MB 14	70	98	85	1.50	8	66.5	8	0.03
MB 14 A	70	98	85	2.50	8	66.5	8	0.06
MB 15	75	104	90	1.50	8	71.5	8	0.04
MB 15 A	75	104	90	2.50	8	71.5	8	0.06
MB 16	80	112	95	2.00	10	76.5	8	0.05
MB 16 A	80	112	95	2.50	10	76.5	8	0.07
MB 17	85	119	102	2.00	10	81.5	8	0.06
MB 17 A	85	119	102	2.50	10	81.5	8	0.07
MB 18	90	126	108	2.00	10	86.5	10	0.07
MB 18 A	90	126	108	2.50	10	86.5	10	0.09
MB 19	95	133	113	2.00	10	91.5	10	0.07
MB 19 A	95	133	113	2.50	10	91.5	10	0.10
MB 20	100	142	120	2.00	12	96.5	10	0.08

Part Number	d (mm)	Ds (mm)	D (mm)	S (mm)	E (mm)	F (mm)	m (mm)	Weight (Kg)
MB 20 A	100	142	120	2.50	12	96.5	10	0.11
MB 21	105	145	126	2.00	12	100.5	12	0.08
MB 22	110	154	133	2.00	12	105.5	12	0.10
MB 23	115	159	137	2.00	12	110.5	12	0.11
MB 24	120	164	138	2.00	14	115	12	0.10
MBL 24	120	151	135	2.00	14	115	12	0.07
MB 25	125	170	148	2.00	14	120	12	0.12
MB 26	130	175	149	2.00	14	125	12	0.10
MBL 26	130	161	145	2.00	14	125	12	0.09
MB 27	135	191	160	2.00	14	130	14	0.15
MB 28	140	192	160	2.00	16	135	14	0.13
MBL 28	140	171	155	2.00	16	135	12	0.11
MB 29	145	202	171	2.00	16	140	14	0.16
MB 30	150	202	171	2.00	16	145	14	0.14
MBL 30	150	188	170	2.00	16	145	14	0.15
MB 31	155	216	182	2.50	16	147.5	16	0.26
MB 32	160	217	182	2.50	18	154	16	0.24
MBL 32	160	199	180	2.50	18	154	14	0.16
MB 33	165	227	193	2.50	18	157.5	16	0.28
MB 34	170	227	193	2.50	18	164	16	0.25
MBL 34	170	211	190	2.50	18	164	16	0.18
MB 36	180	242	203	2.50	20	174	18	0.27
MBL 36	180	221	200	2.50	20	174	16	0.19
MB 38	190	252	214	2.50	20	184	18	0.28
MBL 38	190	231	210	2.50	20	184	16	0.19
MB 40	200	262	226	2.50	20	194	18	0.30
MBL 40	200	248	222	2.50	20	194	18	0.24
MB 44	220	292	250	3.00	24	213	20	0.44
MB 48	240	312	270	3.00	24	233	20	0.47
MB 52	260	342	300	3.00	28	253	24	0.62
MB 56	280	362	320	3.00	28	273	24	0.67



LOCK WASHERS AW
Bended Internal Tooth

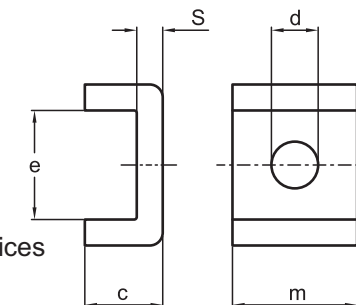


WASHERS AW

Part Number	d (mm)	Ds (mm)	D (mm)	S (mm)	E (mm)	F (mm)	m (mm)	Weight (Kg)	S2
AW 1	12	25	17	1.00	3	10.5	3	0.02	2
AW 2	15	28	21	1.00	4	13.5	4	0.02	2.5
AW 3	17	32	24	1.00	4	15.5	4	0.02	2.5
AW 4	20	36	26	1.00	4	18.5	4	0.04	2.5
AW 5	25	42	32	1.20	5	23	5	0.05	2.5
AW 6	30	49	38	1.20	5	27.5	5	0.06	2.5
AW 7	35	57	44	1.20	6	32.5	5	0.09	2.5
AW 8	40	62	50	1.20	6	37.5	6	0.01	2.5
AW 9	45	69	56	1.20	6	42.5	6	0.01	2.5
AW 10	50	74	61	1.20	6	47.5	6	0.01	2.5
AW 11	55	81	67	1.50	8	52.5	7	0.02	4
AW 12	60	86	73	1.50	8	57.5	7	0.02	4
AW 13	65	92	79	1.50	8	62.5	7	0.03	4
AW 14	70	98	85	1.50	8	66.5	8	0.03	4
AW 15	75	104	90	1.50	8	71.5	8	0.04	4
AW 23	115	159	137	2.00	12	110.5	12	0.11	6
AW 24	120	164	138	2.00	14	115	12	0.10	6
AW 25	125	170	148	2.00	14	120	12	0.16	6
AW 26	130	175	149	2.00	14	125	12	0.1	6
AW 27	135	185	160	2.00	14	130	14	0.15	6
AW 28	140	192	160	2.00	16	135	14	0.13	8
AW 29	145	202	172	2.00	16	140	14	0.16	8
AW 30	150	205	171	2.00	16	145	14	0.14	8
AW 16	80	112	95	2.00	10	76.5	8	0.05	4
AW 17	85	119	102	2.00	10	81.5	8	0.06	4
AW 18	90	126	108	2.00	10	86.5	10	0.07	4
AW 19	95	133	113	2.00	10	91.5	10	0.07	4
AW 20	100	142	120	2.00	12	96.5	10	0.08	6
AW 21	105	145	126	2.00	12	100.5	12	0.08	6
AW 22	110	154	133	2.00	12	105.5	12	0.10	6
AW 31	155	212	182	2.50	16	147.5	16	0.26	8
AW 32	160	217	182	2.50	18	154	16	0.24	8
AW 33	165	222	193	2.50	18	157.5	16	0.28	8
AW 34	170	232	193	2.50	18	164	16	0.25	8
AW 36	180	242	203	2.50	20	174	18	0.27	8
AW 38	190	252	214	2.50	20	184	18	0.28	8
AW 40	200	262	226	2.50	20	194	18	0.3	8



LOCKING DEVICES MS



These are locking devices used to lock HM nuts.

Material: steel SAE 1045.

The locking is followed by a pressure washer and bolt.

LOCKING DEVICES MS

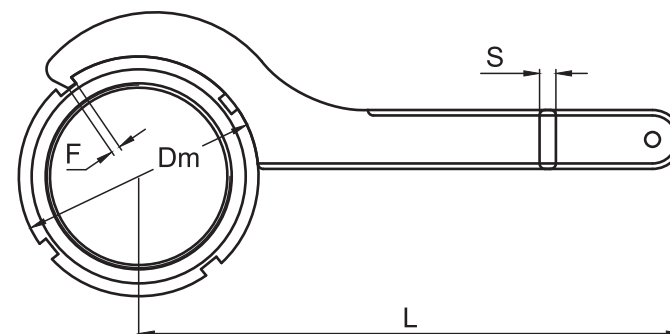
Part Number	m (mm)	S (mm)	c (mm)	d (mm)	e (mm)	Screws	Weight (Kg)
MS 3044	20	4	12	7	13.5	M6x12	0.04
MS 3048-MS 3052	20	4	12	9	17.5	M8x16	0.04
MS 3056	24	4	12	9	17.5	M8x16	0.04
MS 3060	24	4	12	9	20.5	M8x16	0.04
MS 3064-MS 3068	24	5	15	9	21	M8x16	0.06
MS 3072	28	5	15	9	20	M8x16	0.06
MS 3076-MS 3080	28	5	15	12	24	M10x20	0.08
MS 3084	32	5	15	12	24	M10x20	0.08
MS 3088-MS 3092	32	5	15	14	28	M12x25	0.1
MS 3096-30/500	36	5	15	14	28	M12x25	0.11
MS 30/530-600	40	7	21	18	34	M16x30	0.23
MS 30/560	40	7	21	18	29	M16x30	0.21
MS 30/630	45	7	21	18	34	M16x30	0.25
MS 30/670	45	7	21	18	39	M16x30	0.27
MS 30/710	50	7	21	18	39	M16x30	0.28
MS 30/950	60	7	21	22	46	M20x40	0.28
MS 30/1000	60	7	21	22	51	M20x40	0.28
MS 3144-MS 3148	20	4	12	9	22.5	M8x16	0.04
MS 3152-MS 3156	24	4	12	12	25.5	M8x16	0.06
MS 3160	24	4	12	12	30.5	M10x20	0.06
MS 3164	24	5	15	12	31	M10x20	0.08
MS 3168-MS 3172	28	5	15	14	38	M12x25	0.1
MS 3176	32	5	15	14	40	M12x25	0.12
MS 3180-MS 3184	32	5	15	18	45	M16x30	0.16
MS 3188-MS 3192	36	5	15	18	43	M16x30	0.17
MS 3196	36	5	15	18	53	M16x30	0.10
MS 31/500	40	5	15	18	45	M16x30	0.18
MS 31/560-600	45	7	21	22	54	M20x40	0.22
MS 31/710	55	7	21	26	69	M20x40	0.30
MS 30/750-800	55	7	21	18	39	M16x30	0.31
MS 31/530	40	7	21	22	51	M20x40	0.35
MS 31/850	70	7	21	26	71	M24x50	0.41
MS 31/900	70	7	21	26	76	M24x50	0.41
MS 30/850-900	60	7	21	22	44	M20x40	0.42
MS 31/950	70	7	21	26	78	M24x50	0.42
MS 31/630	50	7	21	22	61	M20x40	0.43
MS 31/670	50	7	21	22	66	M20x40	0.45
MS 31/750-800	60	7	21	26	70	M24x50	0.49
MS 31/1000	70	7	21	26	88	M24x50	0.5



This is a **tool** for lock nut with slots on its external diameter.

It is used for the correct assembly of sleeves and nuts, thus avoiding chisel or hammer blows to tighten the nut, which is one of the greater causes for reduction of the working life of bearings.

Material: Carbon steel SAE 1045 with heat treatment and finished with black oxidization.



HOOK SPANNERS

HOOK SPANNERS
HN

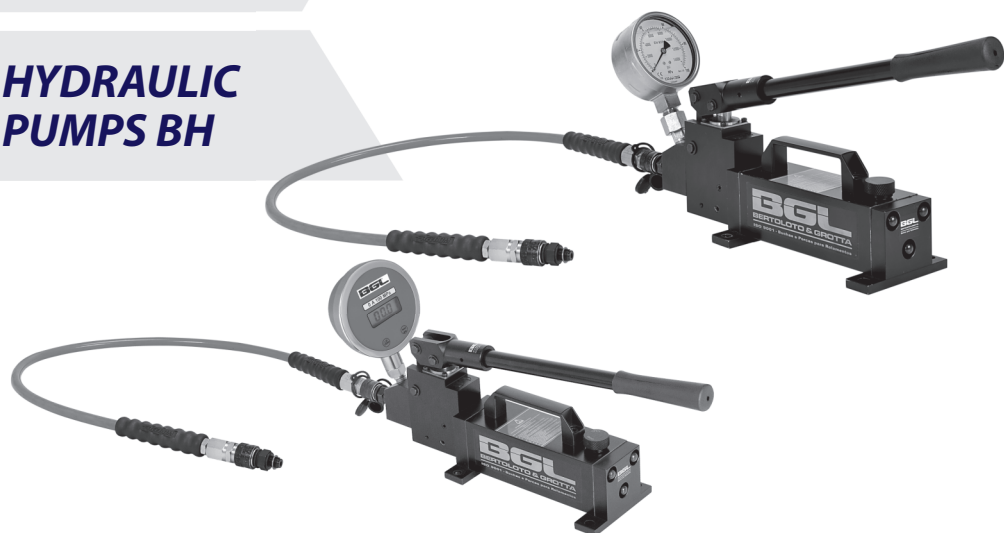


Part Number	Dm (mm)	F (mm)	L (mm)	S (mm)	Weight (Kg)
HN 1	22	2.0	120	4.7	0.06
HN 2	25	2.5	120	4.7	0.06
HN 3	28	2.5	120	4.7	0.06
HN 4	32	2.5	120	4.7	0.06
HN 5	38	3.0	150	4.7	0.09
HN 6	45	3.5	180	6.3	0.18
HN 7	52	3.5	180	6.3	0.19
HN 8	58	4.0	210	8	0.31
HN 9	65	4.0	210	8	0.3
HN 10	70	4.0	210	8	0.31
HN 11	75	4.0	210	8	0.31
HN 12	80	5.0	240	8	0.42
HN 13	85	5.0	240	8	0.42
HN 14	92	5.0	240	8	0.41
HN 15	98	5.0	240	8	0.4
HN 16	105	5.0	240	8	0.39
HN 17	110	5.0	280	12.7	1.01
HN 18	120	5.0	280	12.7	0.94
HN 19	125	5.0	280	12.7	0.95
HN 20	130	5.0	280	12.7	0.95
HN 21	140	6.0	320	12.7	1.30
HN 22	145	6.0	320	12.7	1.27
HN 23	148	10.0	394	12.7	1.59
HN 24	153	10.0	416.5	12.7	1.69
HN 25	158	10.0	429	12.7	1.8
HN 26	163	10.0	436.5	12.7	1.79
HN 27	173	12.0	451.5	15.8	2.22
HN 28	178	12.0	464	15.8	2.11
HN 29	188	12.0	484	15.8	2.66
HN 30	193	12.0	496.5	15.8	2.8
HN 31	198	13.0	509	15.8	2.98
HN 32-HN 33	208	13.0	519	15.8	3.6
HN 34	218	13.0	544	15.8	2.81
HN 36	228	15.0	564	15.8	3.76
HN 38	238	15.0	584	15.8	4.23
HN 40	248	15.0	604	15.8	4.53
HN 44	278	15.0	634	15.8	5.03



This is a device to transfer the liquid contained in the reservoir to the connected equipment. With the generated pressure, it is possible to very easily displace and move very heavy bodies, if appropriate hydraulic tools are used.

HYDRAULIC PUMPS BH



Please check on the table below the Hydraulic Pump best suited for your requirements, taking into consideration the required pressure and quantity of oil.

Ask for codes BH 100-0.7, BH 100-0.7 D, BH 160, BH 160-4.8

MAIN CHARACTERISTICS OF BGL HYDRAULIC PUMPS

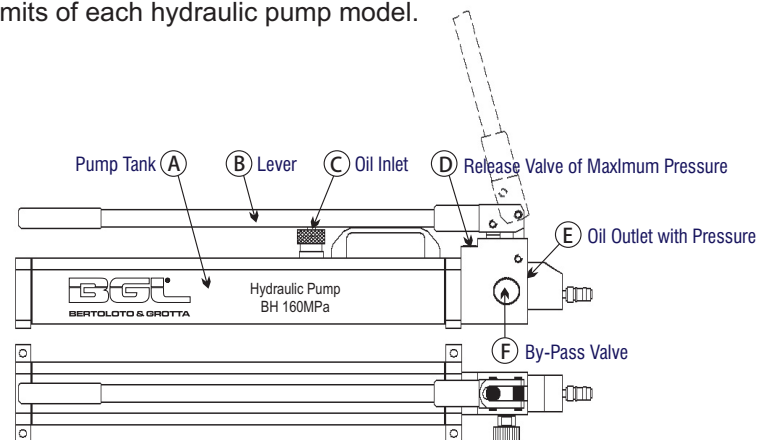
BGL Models Hydraulic Pumps	Working Pressure 'MPa'	Oil Outlet by Cylinder Course 'ml'		Reservoir Volume "liter"	Usable Oil Volume "liter"	Lever Effort 'N'	Pump Dimensions	Outlet Door "Quick Connection"	Total Weight	Application		
		1 ^a	2 ^a							Tapered bearings	With Hydraulic Nut	With Hydraulic Sleeves
BH 100-0.7 <small>Analog Pressure Gauge</small>	100	32	2,5	0,9	0,7	300	470x120x200	1/4" BSP	13,4	1:12	HMV 10E until 134E	All range Assembles and Disassembles all Hydraulic Sleeves
BH 100-0.7 D <small>Digital Pressure Gauge</small>	100	32	2,5	0,9	0,7	300	470x120x200	1/4" BSP	13,4	1:30	HMV 10E until 100E	
BH 160 <small>Analog Pressure Gauge</small>	160	32	1,6	2,2	1,9	460	700x120x260	1/4" BSP	17,2	1:12	HMV 10E until 200E	
BH 160-4.8 <small>Analog Pressure Gauge</small>	160	32	1,6	4,8	4,1	460	680x220x260	1/4" BSP	24,6	1:30	HMV 10E until 150E	
										1:12 and 1:30	All Sizes	

INDICATION

Hydraulic pumps are used along with hydraulic nuts and hydraulic sleeves. When used with the hydraulic nut, the pump purpose is to inject oil into its gutters to displace the piston, while, with hydraulic sleeves, the pump will fill the grooves with oil to push or extract the set (bearing/sleeve).

Hydraulic Pumps have several applications, such as:

- ▶ Mounting and dismounting bearings using the hydraulic method with the hydraulic nut;
- ▶ Dismounting bearings with tapered bore assembled with hydraulic sleeves;
- ▶ Dismounting bearings with tapered bore assembled onto shafts with preparation for oil injection;
- ▶ Multiple applications in the industrial maintenance field, within the maximum pressure limits of each hydraulic pump model.



PART NUMBER	SPARE ACCESSORIES
MABH 100	Hydraulic Pump Pressure Gauge 100 MPa
MABH 100 D	Hydraulic Pump Digital Pressure Gauge 100 MPa
MABH 160	Hydraulic Pump Pressure Gauge 160 MPa
MBH 160	Hydraulic Hose for Pump 100 until 160 MPa
NIPLE 1/4 BSP	Parallel Nipple 1/4" BSP
NIPLE ER	Quick Connection Nipple 1/4" BSP

THE BGL HYDRAULIC PUMP IS FOLLOWED BY

- ▶ 3-meter high pressure hose; MBH 160;
- ▶ Pump pressure gauge MPA and PSI scale; MABH 100, MABH 100 D or MABH 160;
- ▶ Quick connection outlet 1/4" BSP; ER Nipple;
- ▶ Steel briefcase to store the Pump;
- ▶ Instruction handbook.

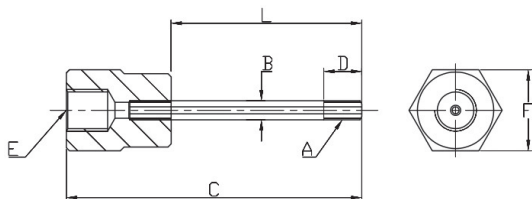
NOTE

Recommended hydraulic oil 68 HPL 1 MPa = 10 Bar = 145 Psi.

EXTENSION TUBES TE

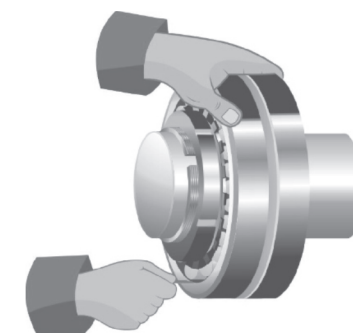
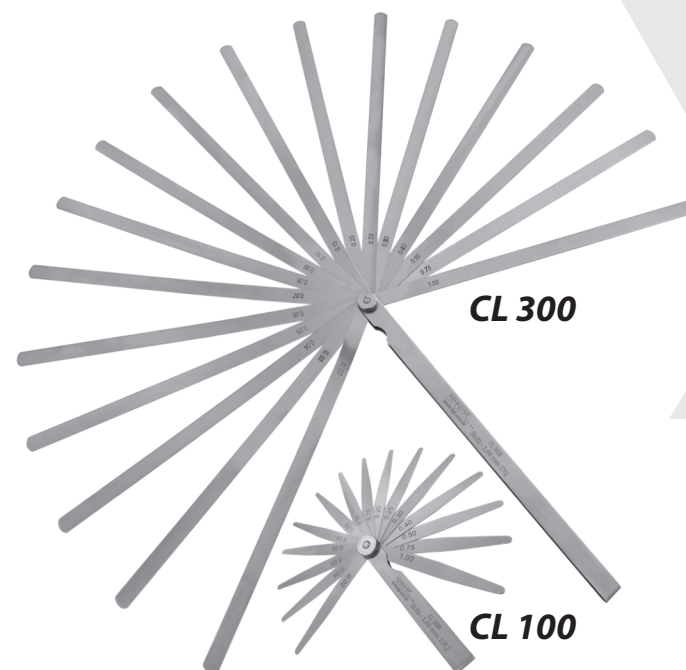


Used for hydraulic sleeves provided with oil injection ducts and grooves. This makes the dismounting process much easier, especially after a long period of use. Sleeves have narrow walls and, when assembled, they get away from the face of the shaft, requiring adequately thin connection pipes with the hydraulic pump connection. To fulfill this requirement, BGL offers appropriate extension tubes for each oil inlet possibility in the sleeve, M4, M6, M8, G1/8, G1/4 and, on the other end, a 1/4 BSP screw for connection to the pump outlet hose.



Part Number	A	B (mm)	C (mm)	D (mm)	E	F (mm)	L	Maximum Working Pressure (Mpa)	Weight (Kg)
TE M4 01	M4x0.7	4	94	9	BSP 1/4	25.4	61	175	0.13
TE M6 01	M6x1	6	91	12	BSP 1/4	25.4	58	180	0.14
TE M6 02	M6x1	6	321	12	BSP 1/4	25.4	288	180	0.20
TE M8 01	M8x1.25	8	318	15	BSP 1/4	25.4	285	220	0.24
TE 1/8BSP 01	1/8x28F BSP	9.6	318	15	BSP 1/4	25.4	285	250	0.29
TE 1/4BSP 01	1/4x19F BSP	13	416	17	BSP 1/4	25.4	383	320	0.50

FEELER GAUGES CL



DEVELOPED TO MEASURE THE CLEARANCE WHILE ADJUSTING SPHERICAL ROLLER BEARINGS.

- ▶ Part Number: CL 100 and CL 300;
- ▶ 17 blades, 0.02 mm to 1.00 mm thick;
- ▶ 100 and 300 mm long blades;
- ▶ Provided with a steel protecting cage;
- ▶ Plastic semitransparent package.

HIGH PRECISION FOR MEASUREMENTS!

Please watch **videos 03, 04, 05, 08, 09 and 10** at www.bgl.com.br/en/treinamento.htm and learn how to use this measurement tool.





**TRAINING KIT
KIT TR**



TRAINING KIT COMPOSITION

PART NUMBER BGL	QUANTITY	DESCRIPTION
ANEL 55	1	Spacer Ring 55 mm
MB 11	4	Lock Washer
BASE TR	1	Base for Training
AHX 312	1	Withdrawal Sleeve
H 312	1	BGL Adapter Sleeve
OH 2315/55H	1	Hydraulic Adapter Sleeve
CALCO 55X62	1	Spacer Wedge
CL 100	1	Feeler Gauge 0,05-1-20L
CATALOGO BGL	1	Printed Catalogue
VID-TEC TR	1	Technical Videos
CHAL 6MM	1	Allen Spanner 6 mm
CHFE 3/16X3"	1	Screw driver 3/16 x 3
HN 11	1	Hook Spanner
HN 12	1	Hook Spanner
HN 13	1	Hook Spanner
HN 15	1	Hook Spanner
CHF1 15/16X1"	1	Fixed Spanner 15/16 x 1"
CHF1 19X22	1	Fixed Spanner 19 x 22
EIXO TR 55	1	Shaft for Training 55 mm
FER COPO 55	1	Cup Tool for Withdrawal
GRAMPO C 2"	2	Base Fixing Clamps
INSTR-MONT	1	Assembly Instructions Hydraulic Nut HMVE
INSTR-MONT TR	1	Printed assembly instructions
MALA TR	2	Training Briefcase
MART KIT TR	1	Ball Hammer 400 g
PAQ KIT TR	1	Vernier Caliper 150 m
KM 11	2	Locknut
KM 13	2	Locknut
HMV 12X1.5E	1	Hydraulic Nut
RC KIT	1	Dial Indicator
2212K	1	Ball Bearings
22212K	1	Roller Bearings
22315K	1	Roller Bearings
SAC PINO 5mm	1	Parallel Centre Punch 5 mm
SB 55	1	Impact Puller
TE M6 01	1	Extension Tube M6 x 1/4 BSP 60 mm

BGL Training Kit, in one case, several pieces for mounting and dismounting sleeves and bearings training. This makes it possible to perform practical experiments of assembly and disassembly of adapter sleeves and withdrawal sleeves on self-aligning ball bearings and spherical roller bearings with tapered bore.

ASSEMBLY AND WITHDRAWAL WITH THE BGL TRAINING KIT

(www.bgl.com.br/en/kit-tr.htm)

Videos at www.bgl.com.br/en/treinamento.htm

- ▶ 01. **Assembly of adapter sleeve** on self-aligning ball bearing with tapered bore with hook spanner.
- ▶ 02. **Assembly of adapter sleeve** on self-aligning ball bearing with tapered bore with hydraulic nut.
- ▶ 03. **Assembly of adapter sleeve** on spherical roller bearing with tapered bore with hook spanner.
- ▶ 04. **Assembly of adapter sleeve** on spherical roller bearing with tapered bore with hook spanner.
- ▶ 05. **Assembly of hydraulic adapter sleeve** on spherical roller bearing with tapered bore with hydraulic nut.
- ▶ 06. **Assembly of withdrawal sleeve** on self-aligning ball bearings with tapered bore with hook spanner.
- ▶ 07. **Assembly of withdrawal sleeve** on spherical roller bearing with tapered bore with hook spanner.
- ▶ 08. **Disassembly of adapter sleeve** on self-aligning ball bearing with tapered bore with impact tool.
- ▶ 09. **Disassembly of hydraulic adapter sleeve** on spherical roller bearing with tapered bore with injection of oil.
- ▶ 10. **Disassembly of withdrawal sleeve** on self-aligning ball bearing with tapered bore with hook spanner.
- ▶ 11. **Disassembly of hydraulic withdrawal sleeve** on spherical roller bearing with tapered bore.



TABLE OF BEARING CLEARANCE REDUCTION

RADIAL CLEARANCE REDUCTION TABLE for the ASSEMBLY of SPHERICAL ROLLER BEARING with tapered bore with ADAPTER or WITHDRAWAL SLEEVE

Nominal Measure Internal diameter (d) (Bearing Bore)		Bearing Radial Clearance Before Assembly										Reduction of Bearing Radial Clearance		Axial Displacement "S"			
		Clearance Group												Axial Displacement Taper 1:12		Axial Displacement Taper 1:30	
		C2		Normal		C3		C4		C5							
Greater than	Up to including	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
24	30	0,020	0,030	0,030	0,040	0,040	0,055	0,055	0,075	-	-	0,010	0,015	0,250	0,290	-	-
30	40	0,025	0,035	0,035	0,050	0,050	0,065	0,065	0,085	0,085	0,105	0,015	0,020	0,300	0,350	-	-
40	50	0,030	0,045	0,045	0,060	0,060	0,080	0,080	0,100	0,100	0,130	0,020	0,025	0,370	0,440	-	-
50	65	0,040	0,055	0,055	0,075	0,075	0,095	0,095	0,120	0,120	0,160	0,025	0,035	0,450	0,540	1,150	1,350
65	80	0,050	0,070	0,070	0,095	0,095	0,120	0,120	0,150	0,150	0,200	0,035	0,040	0,550	0,650	1,400	1,650
80	100	0,055	0,080	0,080	0,110	0,110	0,140	0,140	0,180	0,180	0,230	0,040	0,050	0,660	0,790	1,650	2,000
100	120	0,065	0,100	0,100	0,135	0,135	0,170	0,170	0,220	0,220	0,280	0,050	0,060	0,790	0,950	2,000	2,350
120	140	0,080	0,120	0,120	0,160	0,160	0,200	0,200	0,260	0,260	0,330	0,060	0,075	0,930	1,100	2,300	2,800
140	160	0,090	0,130	0,130	0,180	0,180	0,230	0,230	0,300	0,300	0,380	0,070	0,085	1,050	1,300	2,650	3,200
160	180	0,100	0,140	0,140	0,200	0,200	0,260	0,260	0,340	0,340	0,430	0,080	0,095	1,200	1,450	3,000	3,600
180	200	0,110	0,160	0,160	0,220	0,220	0,290	0,290	0,370	0,370	0,470	0,090	0,105	1,300	1,600	3,300	4,000
200	225	0,120	0,180	0,180	0,250	0,250	0,320	0,320	0,410	0,410	0,520	0,100	0,120	1,450	1,800	3,700	4,450
225	250	0,140	0,200	0,200	0,270	0,270	0,350	0,350	0,450	0,450	0,570	0,110	0,130	1,600	1,950	4,000	4,850
250	280	0,150	0,220	0,220	0,300	0,300	0,390	0,390	0,490	0,490	0,620	0,120	0,150	1,800	2,150	4,500	5,400
280	315	0,170	0,240	0,240	0,330	0,330	0,430	0,430	0,540	0,540	0,680	0,135	0,165	2,000	2,400	4,950	6,000
315	355	0,190	0,270	0,270	0,360	0,360	0,470	0,470	0,590	0,590	0,740	0,150	0,180	2,150	2,650	5,400	6,600
355	400	0,210	0,300	0,300	0,400	0,400	0,520	0,520	0,650	0,650	0,820	0,170	0,210	2,500	3,000	6,200	7,600
400	450	0,230	0,330	0,330	0,440	0,440	0,570	0,570	0,720	0,720	0,910	0,195	0,235	2,800	3,400	7,000	8,500
450	500	0,260	0,370	0,370	0,490	0,490	0,630	0,630	0,790	0,790	1,000	0,215	0,265	3,100	3,800	7,800	9,500
500	560	0,290	0,410	0,410	0,540	0,540	0,680	0,680	0,870	0,870	1,100	0,245	0,300	3,400	4,100	8,400	10,300
560	630	0,320	0,460	0,460	0,600	0,600	0,760	0,760	0,980	0,980	1,230	0,275	0,340	3,800	4,650	9,500	11,600
630	710	0,350	0,510	0,510	0,670	0,670	0,850	0,850	1,090	1,090	1,360	0,310	0,380	4,250	5,200	10,600	13,000
710	800	0,390	0,570	0,570	0,750	0,750	0,960	0,960	1,220	1,220	1,500	0,350	0,425	4,750	5,800	11,900	14,500
800	900	0,440	0,640	0,640	0,840	0,840	1,070	1,070	1,370	1,370	1,690	0,395	0,480	5,400	6,600	13,500	16,400
900	1.000	0,490	0,710	0,710	0,930	0,930	1,190	1,190	1,520	1,520	1,860	0,440	0,535	6,000	7,300	15,000	18,300
1.000	1.120	0,530	0,770	0,770	1,030	1,030	1,300	1,300	1,670	1,670	2,050	0,490	0,600	6,400	7,800	16,000	19,500
1.120	1.250	0,570	0,830	0,830	1,120	1,120	1,420	1,420	1,830	1,830	2,250	0,550	0,670	7,100	8,700	17,800	21,700
1.250	1.400	0,620	0,910	0,910	1,230	1,230	1,560	1,560	2,000	2,000	2,450	0,610	0,750	8,000	9,700	19,900	24,300
1.400	1.600	0,680	1,000	1,000	1,350	1,350	1,720	1,720	2,200	2,200	2,700	0,700	0,850	9,100	11,100	22,700	27,700
1.600	1.800	0,750	1,110	1,110	1,500	1,500	1,920	1,920	2,400	2,400	2,950	0,790	0,960	10,200	12,500	25,600	31,200

Note: Valid only for solid steel axes in general applications.
The axial displacement differs slightly between bearing sets.



Do the online clearance calculation on www.bgl.com.br/en/calculo_reducao

The values listed must be used only as a reference. The final conference must be done with Feeler Gauge.

For assembly or disassembly of Toroidal Roller Bearings CARB, ask for the specific Table for Reduction of Radial Clearance Calculation.

Watch the detailed scripts on www.bgl.com.br/en/treinamento.htm

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