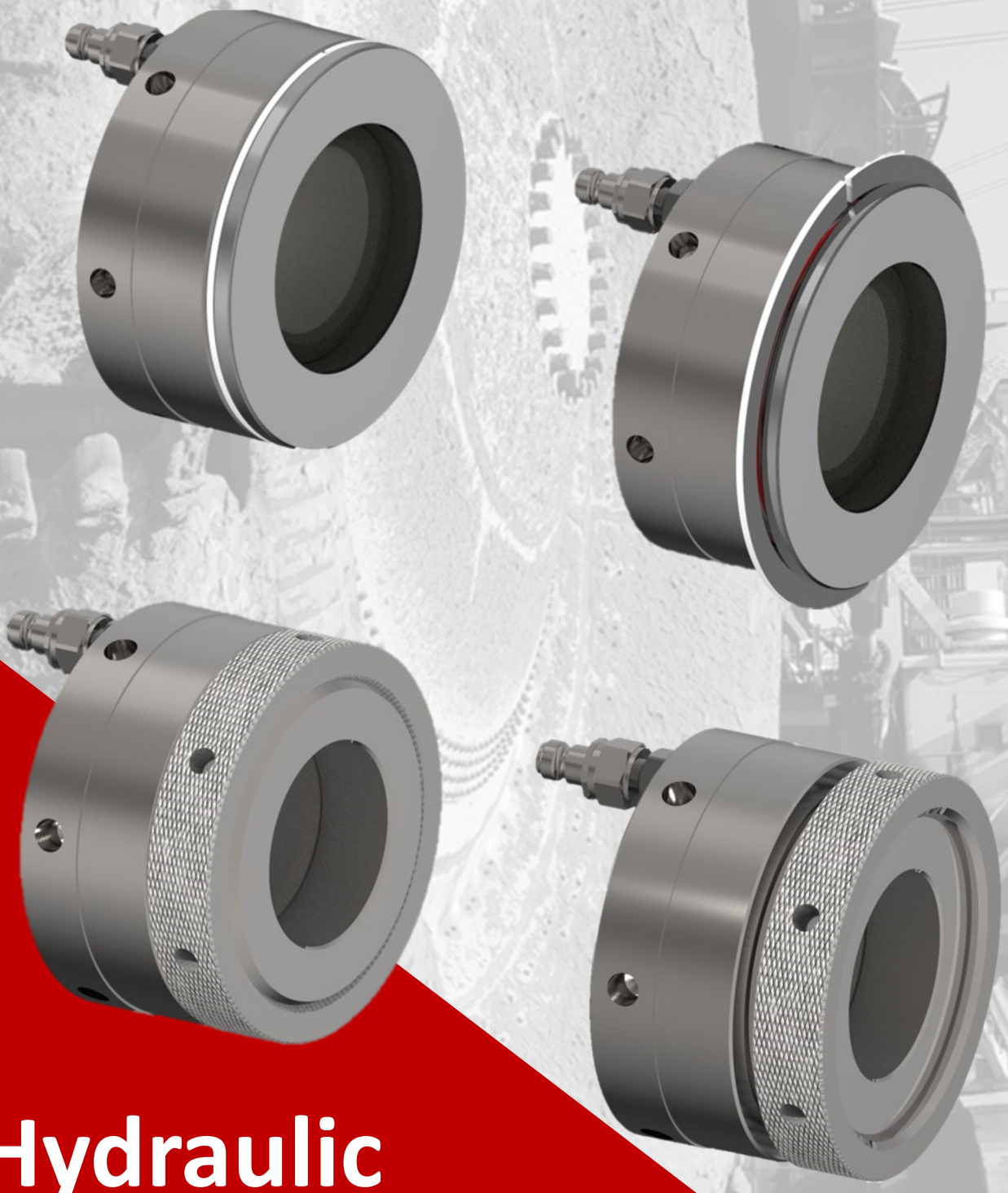
PILGRIM
INTERNATIONAL



Hydraulic Locking Nut Range

M24 to M220

Who We Are

Pilgrim International Limited is a leading British Engineering company based in Oldham, Greater Manchester. We specialise in bolting and positioning systems, tensioning systems, drive-up systems, services and hydraulic pumps.

The company's history goes back to the 1940's when the hydraulicly installed Pilgrim Nut was invented to solve problems in maritime engineering with ship propellor installations

Our tradition of innovative engineering has continued over decades helping the company expand into other sectors including power generation, oil and gas, metals and mining.

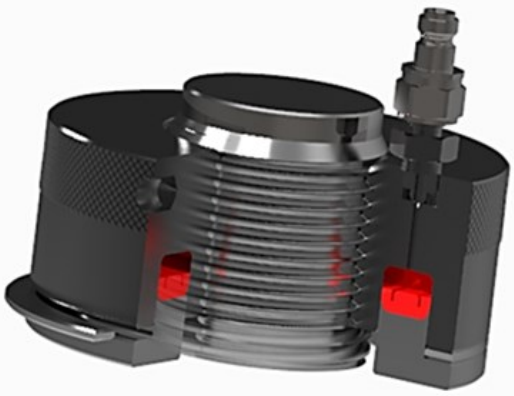
To learn more please scan the QR Code or visit us at:

www.pilgrim-international.co.uk

What is a Hydraulic Nut

A hydraulic nut is a type of fastening device used to secure heavy machinery components or structural elements. It consists of a nut body with a chamber, internal threads and a piston mechanism, including a hydraulic sealing arrangement

Hydraulic fluid is induced into the chamber of the nut body via a quick connector, causing the piston to move and in turn exert pressure against the threaded shaft or stud. This pressure creates a clamping force, allowing the nut to tighten around the bolt or stud with the required force.



Benefits of Hydraulic Nuts

Hydraulic nuts are often used in applications where traditional torque tightening may not provide sufficient force or where accessibility is limited. They are commonly found in industries such as construction, mining, power generation, and heavy machinery. These nuts are particularly useful for situations where precise and uniform tightening is required across multiple fasteners. Additionally, they can be easily removed and reused, making them a versatile and cost-effective solution for many engineering challenges.

- Quick tightening and untightening, removing uncertainty
- Re-usable, can be installed and removed many times without spares
- Safe and operator friendly
- Delivers accurate retained load using operating pressure up to 207MPa
- Choice of locking methods: Shim type or Collar type
- No face galling and thread damage, often result in rectification
- Increased profitability, due to accurate maintenance planning
- Designed to remain in-situ with operating temperature range from –40°C to 200°C

Select Nut Type

There are two basic nut types to choose from, here is a guide to assist you to select the correct type for your application

Shim Type

Comes complete with pre-machined tailored shim pack, usually selected when space is an issue.

Locking Collar Type

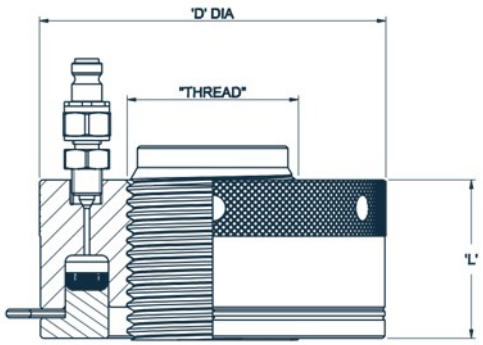
Same performance as shim type, however comes with a simpler locking method, which is easy adjusted on site.

Performance Guide

	ST Shim Type	LR Locking Collar Type
Low Profile	✓	✗
Homogeneous Tightening	✗	✓
Suitable for Ultrasonic Measurements	✓	✓
Working Pressure	207 MPa	207 MPa
Easily Adjustable	✗	✓
Visual Stroke Indicator	✓	✓

ST Type

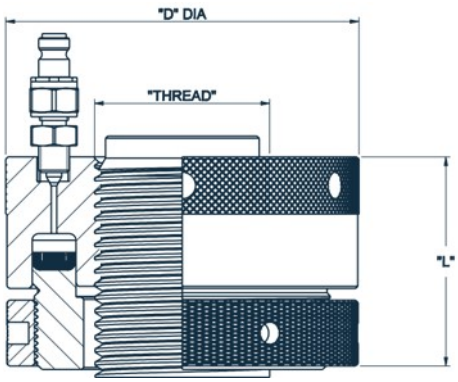
Shim Type Product Table



Pt No.	Nomi-nal Size	D		L		Max Piston Stroke		Load Output	
	mm	in	mm	in	mm	in	mm	KN	lbsf
K1555	M24	2.756	70	1.772	45	0.079	2	211	47,435
K1641	M36	2.953	75	2.047	52	0.079	2	310	69,691
K1556	M42	3.622	92	2.283	58	0.118	3	392	88,125
K1642	M48	3.858	98	2.283	58	0.118	3	481	108,133
K1557	M56	4.449	113	2.520	64	0.118	3	740	166,359
K1558	M60	4.764	121	2.677	68	0.118	3	834	187,491
K1559	M64	5.709	129	2.717	69	0.118	3	926	208,173
K1560	M72	5.709	145	2.598	66	0.157	4	1102	247,739
K1561	M80	6.339	161	2.835	72	0.157	4	1521	341,934
K1562	M90	7.126	181	3.189	81	0.197	5	1938	435,680
K1563	M95	7.480	190	3.819	97	0.197	5	2093	470,525
K1564	M100	7.913	201	4.094	104	0.197	5	2365	531,673
K1565	M110	8.661	220	4.567	116	0.236	6	2755	619,349
K1566	M125	9.843	250	5.039	128	0.236	6	3748	842,584
K1567	M140	11.024	280	5.591	142	0.236	6	4867	1,094,145
K1568	M150	11.811	300	6.024	153	0.276	7	5483	1,232,627
K1569	M160	12.598	320	6.496	165	0.276	7	6380	1,434,281
K1570	M180	14.173	360	7.047	179	0.276	7	8268	1,858,720
K1571	M190	14.961	380	7.559	192	0.315	8	9396	2,112,305
K1572	M200	15.748	400	8.071	205	0.315	8	10050	2,259,330
K1573	M210	16.535	420	8.504	216	0.315	8	10237	2,301,369
K1574	M220	17.323	440	9.055	230	0.394	10	12031	2,704,676

LR Type

Locking Collar Type Product Table



Pt No.	Nomi-nal Size	D		L		Max Piston Stroke		Load Output	
	mm	in	mm	in	mm	in	mm	KN	lbsf
K1575	M24	2.756	70	2.165	55	0.079	2	211	47,435
K1643	M36	2.953	75	2.402	61	0.079	2	310	69,691
K1576	M42	3.622	92	2.125	54	0.118	3	392	88,125
K1644	M48	3.858	98	2.677	68	0.118	3	481	108,133
K1577	M56	4.449	113	2.953	75	0.118	3	740	166,359
K1578	M60	4.764	121	2.992	76	0.118	3	834	187,491
K1579	M64	5.709	129	3.031	77	0.118	3	926	208,173
K1580	M72	5.709	145	3.307	84	0.157	4	1102	247,739
K1581	M80	6.339	161	3.622	92	0.157	4	1521	341,934
K1582	M90	7.126	181	4.173	106	0.197	5	1938	435,680
K1583	M95	7.480	190	4.331	110	0.197	5	2093	470,525
K1584	M100	7.913	201	4.567	116	0.197	5	2365	531,673
K1585	M110	8.661	220	4.921	125	0.236	6	2755	619,349
K1586	M125	9.843	250	5.512	140	0.236	6	3748	842,584
K1587	M140	11.024	280	6.299	160	0.236	6	4867	1,094,145
K1588	M150	11.811	300	6.890	175	0.276	7	5483	1,232,627
K1589	M160	12.598	320	7.480	190	0.276	7	6380	1,434,281
K1590	M180	14.173	360	8.661	220	0.276	7	8268	1,858,720
K1591	M190	14.961	380	9.055	230	0.315	8	9396	2,112,305
K1592	M200	15.748	400	9.449	240	0.315	8	10,050	2,259,330
K1593	M210	16.535	420	9.843	250	0.315	8	10,237	2,301,369
K1594	M220	17.323	440	11.811	300	0.394	10	12,031	2,704,676

Power Pack Options

You've now made the crucial choice of selecting the appropriate hydraulic nut type for your specific application and quantity requirements. The next step is to choose the suitable power pack that will introduce hydraulic fluid into the system.

When it comes to selecting the delivery method, there are three straightforward options:

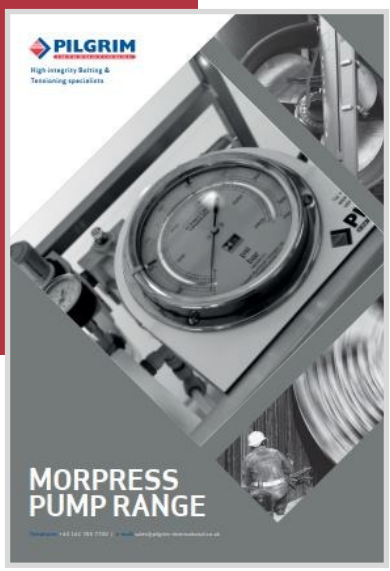
1. **Air Driven**: This option offers higher efficiency and is more operator-friendly. Typically used for multi-tensioning due to oil volume required.
2. **Hand Operated**: While more economical and flexible for operating in remote areas. Suitable only when tensioning low qty of tensioners.
3. **Electric Driven**: Convenient when wanting the capacity and functionality of an air driven pump however there is no available air supply.

Our sales specialists are available to provide guidance throughout this process. Alternatively, if you prefer, leave it to us to make the correct selection as part of the full HYDROCAM package offer, selecting all the required hydraulic equipment ensuring you get all you need to start your tensioning.

Mk-12 MorPress 525 air driven pump

PH1600 MorPress hand operated pump

For a comprehensive overview of all available options, please feel free to browse the MORPESS PUMP RANGE brochure.



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