Hydraulic and Mechanical Pullers

ENERPAC

Enerpac offers a complete line of pullers with the widest range of sizes, capacities and styles. Whether your application requires mechanical, hydraulic or the patented Lock-Grip system, Enerpac can satisfy your requirements.

Made of high strength steel alloys, you can depend on Enerpac pullers to provide years of trouble-free operation, even in the harshest environments.

Hydraulic Pullers (BHP-Series)

These hydraulic pullers eliminate time-consuming and unsafe hammering, heating or prying. Damage to parts is minimized through the use of controlled hydraulic power.

Lock-Grip Pullers (LG-Series)

The puller's self-centering closing system allows all jaws to move simultaneously, making it easy for a single operator to mount the puller and to perform the application.

Sync-Grip Pullers (SG-Series)

Sync-Grip mechanism synchronizes movement of all jaws for simultaneous engagement and makes positioning the puller simple and helps prevent misalignment.

CAUTION! Not all puller components and configurations are rated at the set capacity. Please contact Enerpac for details.

IMPORTANT!
Always wear Safety Goggles and Gloves while using pullers.

Puller Section Overview

When selecting a puller it is important to consider 3 basic specifications:

1. The Capacity:

is the amount of force the puller is capable of producing.

Typically, the capacity required for a job can be determined by using the shaft diameter of the part being pulled.

For manual pullers, the center bolt diameter of the puller should be at least half the diameter of the shaft being pulled from.

For hydraulic pullers, the capacity in tons should be 0,28 to 0,4 times the shaft diameter in mm. Use the following chart:

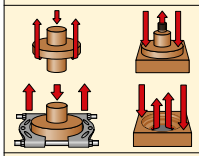
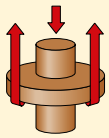
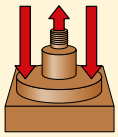
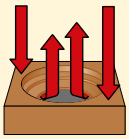
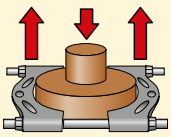
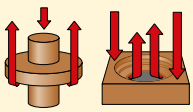
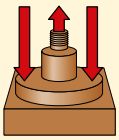
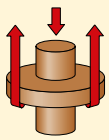
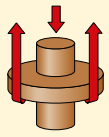
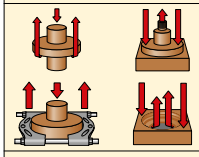
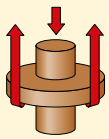
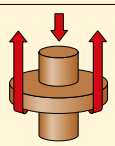
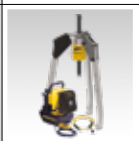
Shaft Diameter	Puller Capacity
0 - 25 mm	13 ton
25 - 50 mm	22 ton
50 - 89 mm	33 ton
89 - 140 mm	45 ton

2. The Reach:

is the distance between the bottom of the base and the jaw flats. The puller's reach must equal or exceed the same distance of the part being pulled.

3. The Spread:

is the distance between the jaws. The puller's spread needs to be greater than the width of the part being pulled.

Puller Function	Capacity ton	Puller Type	Series		Page
	13-45	**Master Puller Sets** Max. Reach: 252 - 700 mm Max. Spread: 247 - 1100 mm	BHP		160 ▶
	13-45	**Grip Puller Sets** Max. Reach: 252 - 700 mm Max. Spread: 249 - 1100 mm	BHP		161 ▶
	6-22	**Cross Bearing Puller Sets** Max. Reach: 357 - 864 mm Max. Spread: 260 - 580 mm	BHP		162 ▶
	6-22	**Bearing Cup Pullers** Max. Reach: 115 - 150 mm Max. Spread: 145 - 240 mm	BHP		164 ▶
	6-22	**Bearing Separators** Max. Width: 110 - 260 mm Max. Spread: 110 - 250 mm	BHP		164 ▶
	-	**Internal/External Mech. Puller** Max. Internal Reach: 45 - 79 mm Max. Internal Spread: 60 - 100 mm Max. External Reach: 55 mm Max. External Spread: 15 - 75 mm	IPM		165 ▶
	3-40	**Mechanical Lock-Grip Pullers** Max. Reach: 102 - 335 mm Max. Spread: 132 - 635 mm	LGM		166 ▶
	10-64	**Hydraulic Lock-Grip Pullers and Sets** Max. Reach: 215 - 408 mm Max. Spread: 300 - 660 mm	LGH LGHS		168 ▶
	1-20	**Mechanical Sync-Grip Pullers** Max. Reach: 105 - 600 mm Max. Spread: 110 - 680 mm	SGM		172 ▶ 174 ▶
	13-45	**Hydraulic Sync-Grip Pullers and Master Puller Sets** Max. Reach: 320 - 700 mm Max. Spread: 350 - 980 mm	SGH MPS		172 ▶ 175 ▶
	13-45	**Hydraulic Sync-Grip Pullers and Sets** Max. Reach: 320 - 700 mm Max. Spread: 350 - 980 mm	SGH GPS		176 ▶
	100	**Hydraulic Sync-Grip Pullers and Sets** Max. Reach: 1000 mm Max. Spread: 1600 mm	SGH GPS		177 ▶

▼ Shown: **Master Puller Set BHP3751G**

Multi Purpose Puller Set

WARNING
Do not exceed 50% of the rated puller capacity when using two jaw configurations, a double crosshead (2 grip arms) or when using puller legs in combination with bearing puller attachments.

IMPORTANT!
Always wear Safety Goggles and Gloves while using pullers.

- **Supplied with a full hydraulic set including pump, hose, cylinder, gauge, gauge adaptor and wooden case**
- **High quality, forged steel components provide superior reliability and service**
- **Sets include speed crank and adjusting screw for fast contact to work before hydraulics are applied**
- **All Master Puller Sets include a Grip Puller, a Cross Bearing Puller, a Bearing Cup Puller and a Bearing Separator, which can be ordered separately, see items nr. 10, 20 , 30 and 40.**

▲ *Maintenance engineers throughout the industry greatly appreciate the Enerpac Master Puller sets.*

▼ **SELECTION CHART**

Master Puller Set Capacity *		**13 ton**	**22 ton**	**33 ton**	**45 ton ****	***Page:***
	Model Number ▶	**BHP1752 [1)]**	**BHP2751G**	**BHP3751G**	**BHP5751G**	
Included Hydraulics	**Set Weight ▶**	37 kg	90 kg	172 kg	298 kg	
• Hand Pump		P142	P392	P392	P80	**76-79 ▶**
• Cylinder		RWH121900	RCH202	RCH302	RCH603	**34 ▶**
• Saddle		–	HP2015	HP3015	HP5016	**35 ▶**
• Hose		HC7206C	HC7206C	HC7206C	HC7206C	**128 ▶**
• Gauge + Adaptor		GA45GC	GA45GC	GA45GC	GA45GC	**142 ▶**
Included Pullers						
10 Grip Puller		BHP1762	BHP252	BHP352	BHP552	**161 ▶**
20 Cross Bearing Puller		BHP1772	BHP262	BHP362	BHP562	**162-163 ▶**
30 Bearing Cup Puller		BHP180	BHP280	BHP380	BHP580	**164 ▶**
40 Bearing Separator		BHP181	BHP282	BHP382	BHP582	**164 ▶**
• Case		CM6	CW350	CW350	CW750	

* See warning on this page.
** Puller capacity at 540 bar; maximum cylinder capacity at 700 bar is 60 ton.
[1)] Includes Adaptor FZ1055.

▼ Shown: **Grip Puller Set BHP351G**

BHP Series

Capacity:
13, 22, 33 and 45 ton

Reach:
252 - 700 mm

Spread:
249 - 1100 mm

Maximum Operating Pressure:
700 bar

- **Precise hydraulic control allows fast, efficient and safe pulling**
- **High quality, forged steel components provide superior reliability and service**
- **Available with and without full hydraulic set.**

Ordering Example

Model Number BHP251G:
includes Grip Puller BHP252 and a full hydraulic set. (Hand pump, cylinder, saddle, hose, gauge and gauge adaptor).

Model Number BHP252:
includes Grip Puller mechanical parts only, for use with your existing hydraulics.

▼ SELECTION CHART

Grip Puller Set Capacity **		13 ton	22 ton	33 ton	45 ton ***
	Model Number ▶	BHP152 [1]	BHP251G	BHP351G	BHP551G
Included Hydraulics	Set Weight ▶	22 kg	56 kg	91 kg	160 kg
• Hand Pump		P142	P392	P392	P80
• Cylinder		RWH121900	RCH202	RCH302	RCH603
• Saddle		–	HP2015	HP3015	HP5016
• Hose		HC7206C	HC7206C	HC7206C	HC7206C
• Gauge + Adaptor		GA45GC	GA45GC	GA45GC	GA45GC
10 Grip Puller	Model Number ▶	BHP1762 *	BHP252 *	BHP352 *	BHP552 *
Maximum Spread (mm)	2-jaw	249	400	593	899
	3-jaw	249	499	800	1100
Maximum Reach (mm)	2-jaw	252	300	387	700
	3-jaw	252	300	387	700
Jaw (mm)	Thickness	15	20	24	30
	Width	23	27	38	39
Adjusting Screw (mm)	Thread	¾" - 16 UNF	1" - 8 UNC	1¼" - 7 UNC	1⅝" - 5.5 UNS
	Length	400	670	790	975
• Case		CW166	CW166	CW350	CW750

[1] Includes Adaptor FZ1055.
* Grip Puller order number without hydraulics.
** See warning on page 160.
*** Puller capacity at 540 bar; maximum cylinder capacity at 700 bar is 60 ton.

▼ **BHP361G Hydraulic Cross Bearing Puller Set**

- **Precise hydraulic control allows fast, efficient and safe pulling**
- **High quality, forged steel components provide superior reliability and service**
- **Quick set-up to tackle a variety of jobs.**

BHP Series

Capacity:
6, 11, 16 and 22 ton

Reach:
357 - 864 mm

Spread:
260 - 580 mm

Maximum Operating Pressure:
350 bar

CAUTION! Not all puller components and configurations are rated at the set capacity. Please contact Enerpac for details.

Cross Bearing Puller Sets			
			
Hand Pump	**XA11G** Air Pump	**PUD1300** Electric Pump	**XC1201M** Cordless Pump
BHP162	**BHP162A**	**BHP162EE ***	**BHP162CE ***
BHP261G	**BHP261GA**	**BHP261GEE ***	**BHP261GCE ***
BHP361G	**BHP361GA**	**BHP361GEE ***	**BHP361GCE ***
BHP561G	**BHP561GA**	**BHP561GEE ***	**BHP561GCE ***

* **E** = 230 V pump. For 115 V change "E" suffix into "**B**".

▼ **SELECTION CHART**

			6 ton	11 ton	16 ton	22 ton
		Model Number ▶	**BHP162** [1]	**BHP261G**	**BHP361G**	**BHP561G**
	Included Hydraulics	**Set Weight ▶**	26 kg	62 kg	121 kg	185 kg
	• Hand Pump		P142	P392	P392	P80
	• Cylinder		RWH121900	RCH202	RCH302	RCH603
	• Saddle		–	HP2015	HP3015	HP5016
	• Hose		HC7206C	HC7206C	HC7206C	HC7206C
	• Gauge + Adaptor		GA45GC	GA45GC	GA45GC	GA45GC
20	**Cross Bearing Puller** [2]	**Model Number ▶**	**BHP1772**	**BHP262**	**BHP362**	**BHP562**
	Spread (mm)	Maximum	260	345	440	580
		Minimum	115	140	180	220
	Reach (mm)	Maximum	357	570	710	864
	Adjusting Screw (mm)	Diameter	¾"- 16 UNF	1"- 8 UNC	1¼"- 7 UNC	1⅝"- 5.5 UNS
		Length	400	675	795	975
	Leg (mm)	Length	105	239	203	609
		Length	357	419	457	863
		Length	–	571	711	–
		Length	–	114	–	–
	Upper Leg Ends (mm)	Thread	¾"- 16 UNF	¾"- 16 UNF	1-14 UNS	1¼"- 12 UNF
	Lower Leg Ends (mm)	Thread	⅝"- 18 UNF	⅝"- 18 UNF	1-14 UNS	1¼"- 12 UNF
30	**Bearing Cup Puller** [2]	**Model Number ▶**	**BHP180**	**BHP280**	**BHP380**	**BHP580**
40	**Bearing Separator** [2]	**Model Number ▶**	**BHP181**	**BHP282**	**BHP382**	**BHP582**
	• Wooden Case		CM6	CW187	CW350	CW750

[1] Includes Adaptor FZ1055.
[2] Can be ordered separately without hydraulic components, see page 163-164.

Cross Bearing Puller Sets

CAUTION! Not all puller components and configurations are rated at the set capacity. Please contact Enerpac for details.

Dimensions

Dimensional information for all puller models is included in the dimensional overview and dimension guide.

Page: 170

BHP Series

Puller Capacity:
6 - 22 ton

Maximum Reach:
357 - 864 mm

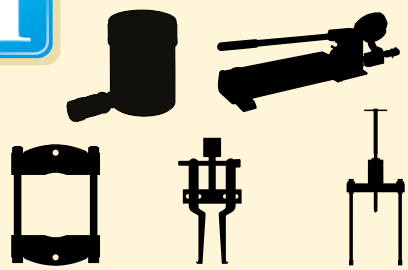
Maximum Spread:
260 - 580 mm

Maximum Operating Pressure:
350 bar

WARNING!

Enerpac cylinder and pump can be operated to 700 bar, but should not be operated past 350 bar pressure when using the cross bearing puller set tools.

Cross Bearing Puller Sets include: [1]



[1] Choose pump options below.

▼ SELECTION CHART

Puller Capacity [1] (ton)	Cross Bearing only Model Number	Cylinder Stroke (mm)	Maximum Reach A (mm)	Maximum Spread B (mm)	Model Numbers Hydraulic Cross Bearing Puller Sets			
								
					Hand Pump	Air Driven Foot Pump	Electric Pump [2]	Cordless Pump [2]
6	**BHP1772**	25	357	260	**BHP162**	**BHP162A**	**BHP162EE**	**BHP162CE**
11	**BHP262**	49	570	345	**BHP261G**	**BHP261GA**	**BHP261GEE**	**BHP261GCE**
16	**BHP362**	64	710	440	**BHP361G**	**BHP361GA**	**BHP361GEE**	**BHP361GCE**
22	**BHP562**	76	864	580	**BHP561G**	**BHP561GA**	**BHP561GEE**	**BHP561GCE**

[1] Puller capacity at 540 bar; maximum cylinder capacity is at 700 bar is 60 ton.

[2] For 115 Volt application with eletric pump change suffix "B" of model nr; example **BHPG261GEB**
For 230 Volt application with cordless pump change suffix "E" to model nr; example **BHP261GCB**

▼ Shown: **BHP380**

Bearing Cup Puller

- **Made of high strength steel alloy**
- **Easily adapted to Cross Bearing Pullers for fast and efficient removal of the most difficult parts**
- **Adjustable to fit a variety of bearings and seals.**

BHP Series

Capacity:
6, 11, 16 and 22 ton

Maximum Reach:
115 - 150 mm

Spread Range:
145 - 240 mm

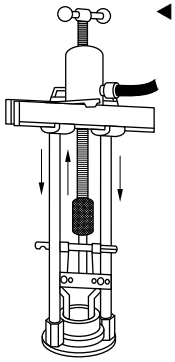
Maximum Operating Pressure:
350 bar

▼ **SELECTION CHART**

Capacity *		6 ton	11 ton	16 ton	22 ton
30 Bearing Cup Puller					
Model Number ▶		**BHP180**	**BHP280**	**BHP380**	**BHP582**
Spread (mm)	Max.	145	160	240	240
	Min.	40	32	60	60
Reach (mm)	Max.	115	140	150	150
Center Screw	Thread	¾"- 16 UNF	1"- 8 UNC	1¼"- 7 UNC	1⅝"- 5.5 UNS

* Puller capacity, not attachment capacity. See warning on this page.

WARNING
Do not exceed 50% of the rated puller capacity when using a double crosshead (2 grip arms) or when using puller legs in combination with bearing puller attachments.

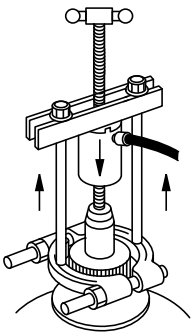


◀ *Bearing Cup Puller shown with Crosshead Puller Attachment.*

▼ Shown: **BHP382**

Bearing Separator

- **Made of high strength steel alloy**
- **Wedge-shaped edges allow removal of the most hard-to-grip components**
- **Easily adapted to Cross Bearing Pullers for fast and efficient removal of the most difficult parts.**



Bearing Separator shown with Crosshead Puller Attachment. ▶

▼ **SELECTION CHART**

Capacity *		6 ton	11 ton	16 ton	22 ton
40 Bearing Puller					
Model Number ▶		**BHP181**	**BHP282**	**BHP382**	**BHP582**
Spread (mm)	Max.	110	134	250	250
	Min.	10	12	17	17
Width (mm)		110	155	260	260
Thread		⅝"-18 UNF	¾"- 18 UNF	1"- 14 UNS	1¼"- 12 UNF

* Bearing Separator rated at 50% of puller capacity. See warning on this page.

Bearing Separator

Bearing Separator has wedge shaped edges for placing puller behind hard to reach bearings, gears, etc., where clearance prevents direct application of grip puller arms.

The Bearing Separator can be used with the Cross Bearing Puller or the Grip Puller.

▼ **IPM3 Internal & External Mechanical Puller**

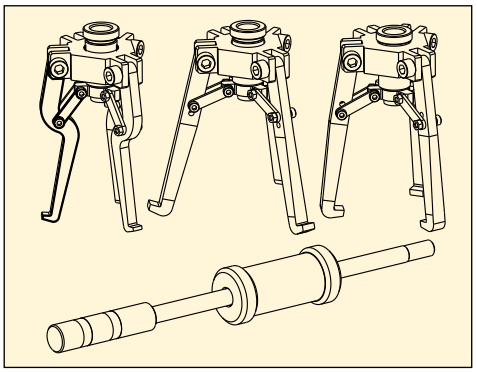
IPM
Series

Maximum Internal Reach:
45 - 79 mm

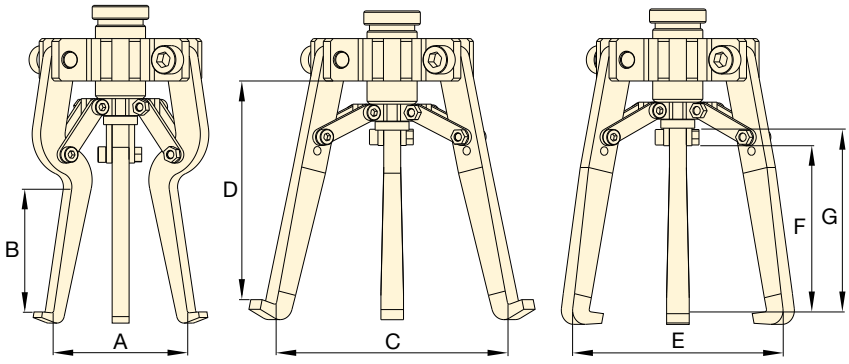
Spread Internal Range:
60 - 100 mm

Maximum External Reach:
55 mm

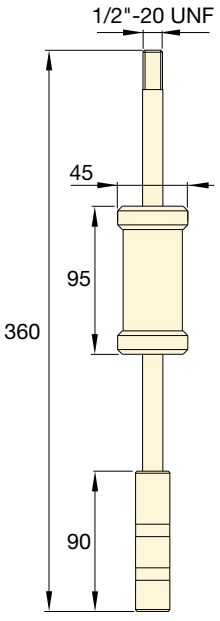
Spread External Range:
15 - 75 mm



- **Remove bearings or other shaft-mounted parts where no spindle support is available**
- **Slide hammer allows for application of safe, high-impact force**
- **Jaw design provides secure grip**
- **Includes two sets of jaws for internal and external pulling applications.**



IPM3 Internal **IPM3 External**



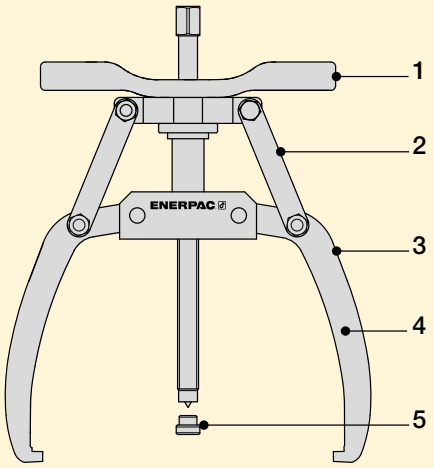
Slide Hammer (1,4 kg)
Dimensions (mm)

Model Number	Internal Jaw Dimensions (mm)			Standard Jaw Dimensions (mm)							
				Internal Configuration			External Configuration				
	Minimum Spread Diameter	Maximum Spread Diameter	Maximum Reach	Minimum Spread Diameter	Maximum Spread Diameter	Maximum Reach	Minimum Spread Diameter	Maximum Spread Diameter	Maximum Reach		
	A	A	B	C	C	D	E	E	F	G	(kg)
IPM3	25	60	45	60	100	79	15	75	55	70	1,9

▼ 2 and 3-Jaw Mechanical Lock-Grip Pullers

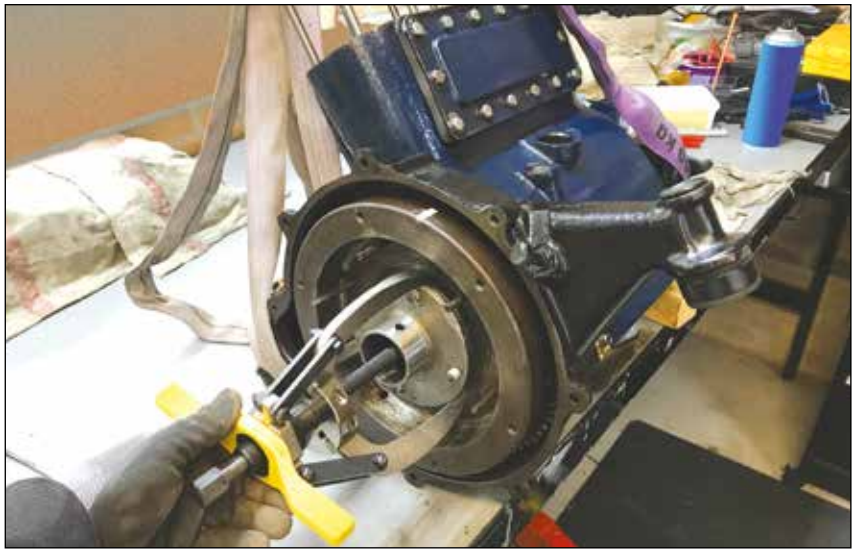
The simple, safe and cost-effective way to remove shaft-mounted parts

- **Quickly and easily mount on a wide range of applications**
- **Lock-on jaws offer a secure grip for safe and easy operation**
- **Synchronous jaw movement enables entire pulling job to be performed by a single operator**
- **Available in 2 and 3-jaw configurations.**



1. Convenient adjustment handle simplifies positioning of jaws on application and increases speed of operation.
2. Locking mechanism helps prevent puller jaws from slipping off application during pulling process.
3. Greater spreading width on top portion of jaws enables use on thicker objects.
4. Synchronous jaw movement increases ease of use, allowing one operator to mount the tool and perform the pulling application.
5. Point protector helps prevent damage to spindle when pulling against a flat surface.

▼ *Lock-Grip Pullers – the simple, safe and cost-effective way to remove shaft-mounted parts.*



Mechanical Lock-Grip Pullers

LGM-Series, Lock-Grip Pullers

LGM-Series pullers are an ideal solution for pulling small to medium-size wheels, sprockets, bearings and other similar shaft-mounted parts. The puller's self- centering closing system allows all jaws to move simultaneously, making it easy for a single operator to mount the puller and to perform the application.

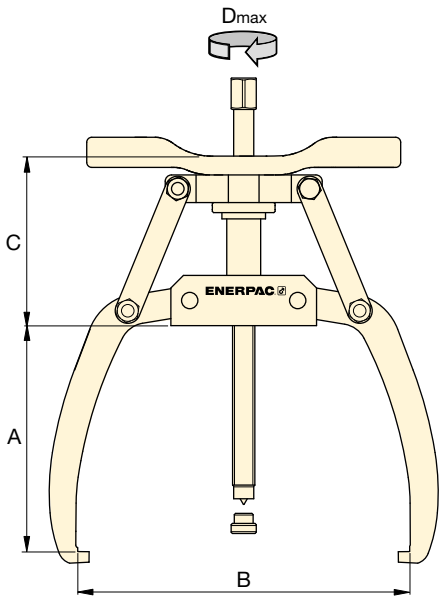
Turning the puller handle locks the jaws onto the application, allowing the desired object to be pulled free when the spindle is turned.

LGM Series

Puller Capacity:
3 - 40 ton

Maximum Reach:
102 - 335 mm

Maximum Spread:
132 - 635 mm



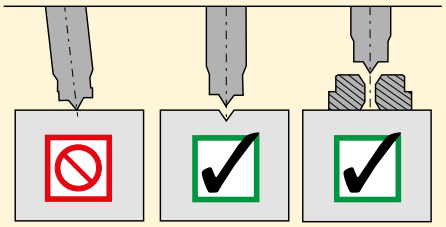
IMPORTANT!

Always wear safety goggles and gloves while using pullers.

Point Protector

LGM-Series Pullers MUST be used with a point protector if the shaft end does not contain a drilled center hole.

One point protector is included with every puller.



▼ SELECTION CHART

Mechanical Puller Model Number	Dimensions (mm) Maximum Reach A	Minimum Spread Diameter B	Maximum Spread Diameter B	C	Number of Jaws	Puller Capacity US ton (kN)	Maximum Torque Dmax (Nm)	(kg)	Replacement Point Protector Part Number
LGM203	102	28	132	60	2	**3** (27)	41	1,7	**SGM0404**
LGM305	102	28	132	60	3	**5** (45)	68	2,1	
LGM204	142	30	186	90	2	**4** (36)	68	2,5	
LGM306	142	30	186	90	3	**6** (49)	100	3,1	
LGM207	177	35	260	134	2	**7** (62)	117	4,9	**SGM0704**
LGM308	177	35	260	134	3	**8** (71)	134	6,9	
LGM211	215	84	300	126	2	**11** (98)	203	6,7	
LGM318	215	110	390	140	3	**18** (160)	332	9,9	
LGM324	265	90	460	140	3	**24** (214)	443	13,9	**LGH14K6**
LGM340	335	100	635	210	3	**40** (356)	996	36,0	**LGH24K6**

▼ 2 and 3-Jaw Hydraulic Lock-Grip Pullers

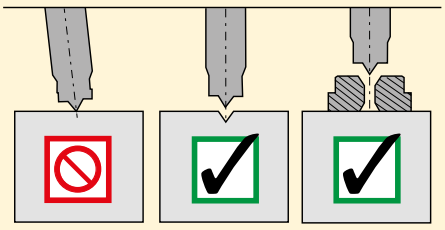
The simple, safe and cost-effective way to remove shaft-mounted parts

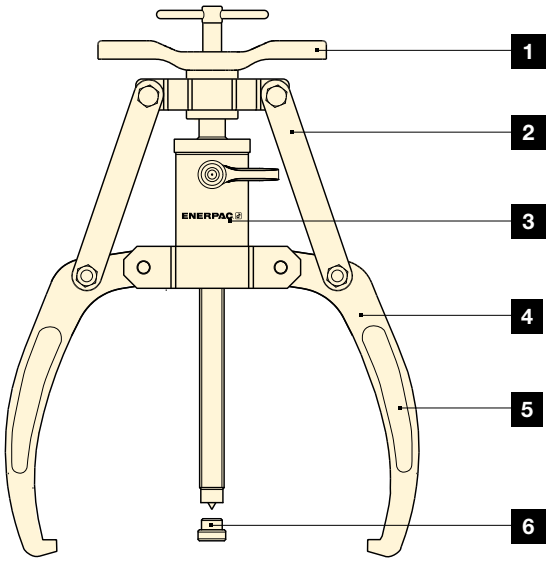
- **Quickly and easily mount on a wide range of applications**
- **Hydraulically applied pulling force increases pulling capacity, reducing operator fatigue**
- **Lock-on jaws offer a secure grip for safe and easy operation**
- **Synchronous jaw movement enables entire pulling job to be performed by a single operator**
- **Available in 2 and 3-jaw configurations with or without a detachable hollow cylinder.**

Point Protector

LGH-Series Pullers MUST be used with a point protector if the shaft end does not contain a drilled center hole.

One point protector is included with every puller.





1. Convenient adjustment handle simplifies positioning of jaws on application and increases speed of operation.
2. Locking mechanism helps prevent jaws from slipping off application during pulling process.
3. Detachable hollow cylinder offers increased pulling capacity compared to mechanical alternatives.
4. Greater spreading width on jaws enables use on thicker objects.
5. Synchronous jaw movement increases ease of use, allowing one operator to mount the tool and perform the pulling application.
6. Point protector helps prevent damage to spindle when pulling against a flat surface.

LGH-Series, Lock-Grip Pullers

LGH-Series pullers provide the same safety and ease of use as their mechanical counterparts, with the pulling force applied by a standard 700 bar hydraulic cylinder.
LGH-Series Lock-Grip pullers can apply up to 64 tons of force and are perfect for removing larger shaft-mounted objects up to 660 mm diameter.

Turning the puller handle locks the jaws onto the application, allowing the desired object to be pulled free when the spindle is turned.

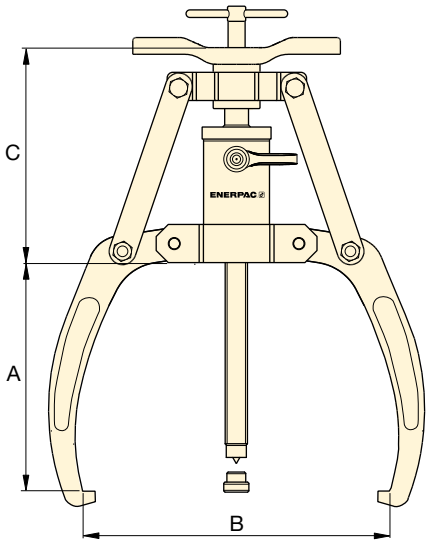
LGH LGHS Series

Puller Capacity:
10 - 64 ton

Maximum Reach:
215 - 408 mm

Maximum Spread:
300 - 660 mm

Maximum Operating Pressure:
700 bar



IMPORTANT!
Always wear safety goggles and gloves while using pullers.

Hydraulic Pullers

LGH-Series Hydraulic Pullers include puller and hydraulic cylinder.

Hydraulic Puller Sets

LGHS-Series Hydraulic Pullers Sets include hydraulic puller, pump, gauge and HC7206C hydraulic hose.
Choose pump options below.

▼ SELECTION CHART

Hydraulic Puller Model Nr [1]	Dimensions (mm) Maximum Reach A	Minimum Spread Diameter B	Maximum Spread Diameter B	C	Number of Jaws	Puller Capacity US ton (kN)	(kg)	Replacement Point Protector Part Number	Hydraulic Puller Sets Model Number Hand Pump P392 Gauge Ass'y GA45GC	Air Pump XA11G Integrated Gauge	Electric Pump PUD1300E* Gauge G2535L	Cordless Pump XC1201ME* Gauge Ass'y GA45GC
LGH210	215	84	300	192	2	**10** (92)	10	**SGM0704**	–	–	–	–
LGH310	215	84	300	192	3	**10** (92)	13	**SGM0704**	**LGHS310H**	**LGHS310A**	**LGHS310EE***	**LGHS310CE***
LGH214	260	125	380	186	2	**14** (125)	14	**LGH14K6**	–	–	–	–
LGH314	260	125	380	186	3	**14** (125)	18	**LGH14K6**	**LGHS314H**	**LGHS314A**	**LGHS314EE***	**LGHS314CE***
LGH224	336	165	480	325	2	**24** (215)	37	**LGH24K6**	–	–	–	–
LGH324	336	165	480	325	3	**24** (215)	47	**LGH24K6**	**LGHS324H**	**LGHS324A**	**LGHS324EE***	**LGHS324CE***
LGH253	408	230	660	473	2	**53** (467)	111	**LGH253K6**	–	–	–	–
LGH364	408	230	660	473	3	**64** (576)	139	**LGH253K6**	**LGHS364H**	**LGHS364A**	**LGHS364EE***	**LGHS364CE***

[1] Hydraulic puller models include cylinder. To receive puller without cylinder add "NC" after LGH (Example: **LGHNC210**).

* **E** = for 230V applications. For 115V applications change last suffix from E into **B**. Example **LGHS310EB**.

Hydraulic Lock-Grip Master Puller Sets

ENERPAC

Master Puller Sets include a hydraulic puller, cylinder, a pump with hose and gauge for standard pulling applications, as well as a selection of accessories designed for work environments where clearance prevents a direct application of the puller jaws.

Lock-Grip Pullers:
All sets come with a hydraulic LGH-Series Puller. Both two jaw and three jaw versions are available.

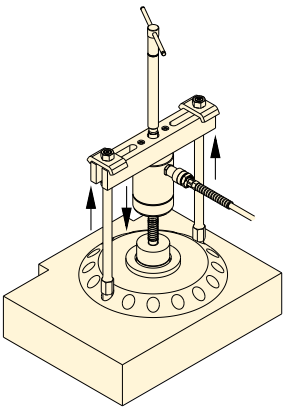
Detachable RCH-Hollow Cylinder:
Provided with all hydraulic pullers as well as the Cross Bearing Puller.

Pump with Hose and Gauge:
Hydraulic Puller Sets and Master Puller Sets are supplied with a hose, gauge, and your choice of a hand, air, electric or battery-powered cordless pump.

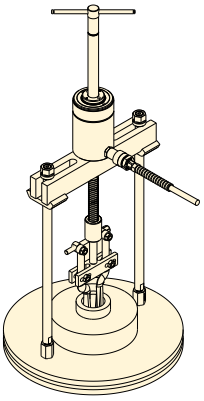
BHP-Cross Puller:
Hydraulically powered via a detachable hydraulic cylinder and pump. The Cross Puller can be used individually as a 'push' puller, or in conjunction with the Bearing Separator or Bearing Cup Puller.

BHP-Bearing-Cup Puller:
Specifically designed to pull cup style bearings and other applications requiring an internal style puller.

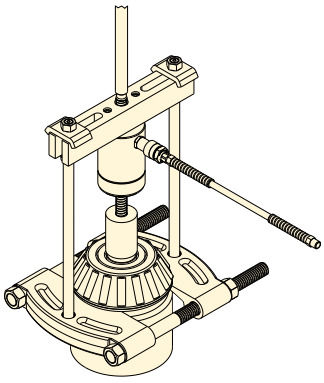
BHP-Bearing Separator (used with BHP-Cross Bearing Puller):
Features narrow edges, which enable puller to be placed behind hard to reach bearings, gears, etc., where limited clearance prevents the direct application of puller arms.



▲ *Cross Bearing puller on application*



▲ *Cross Bearing Puller with Bearing Cup Puller on application*



▲ *Cross Bearing Puller with Bearing Separator on application*

▼ DIMENSIONAL INFORMATION

Model Number	Cross Bearing Puller (mm) A	B min.	Thread Size C	(kg) *
BHP112	280	115	⅝"-18 UNF	2,0
BHP172	280	115	⅝"-18 UNF	2,1
BHP272	370	140	⅝"-18 UNF	2,4
BHP672	615	220	1¼"-12 UNF	6,4

Model Number	Bearing Separator (mm) A	B min.	B max.	Thread Size C	(kg)
BHP181	110	10	110	⅝"-18 UNF	2,8
BHP282	156	12	134	⅝"-18 UNF	5,7
BHP292	182	13	210	⅝"-18 UNF	12,5
BHP682	300	20	300	1¼"-12 UNF	43,5

Model Number	Bearing Cup Puller (mm) A	B	C min.	C max.	(kg)
BHP180	135	236	40	145	2,0
BHP190	164	265	40	145	2,0
BHP280	164	265	40	145	2,4
BHP580	150	310	60	240	6,4

* With slotted crosshead, cylinder and spindle.

Hydraulic Lock-Grip Master Puller Sets

▼ **LGHMS Master Puller Set with Hand Pump Option**

LGHMS Series

Puller Capacity:
10 - 64 ton

Maximum Reach:
215 - 408 mm

Maximum Spread:
300 - 660 mm

Maximum Operating Pressure:
700 bar

- **All LGHMS-Series Master Puller Sets include an LGH-Series Hydraulic Puller with 3 jaws, a Cross Puller, a Bearing Separator, a Bearing Cup Puller, a detachable Hollow Cylinder, a hose, a gauge and a pump**
- **Set options include hand, air, electric or battery-powered pump for an optimal solution to every application.**

Puller Dimensions

See dimensional information for LGH-pullers on page 168.
For dimensions of BHP-puller attachments, see page 170.

LGH-Series, Hydraulic Pullers

Hydraulic Pullers include puller and hydraulic cylinder.

LGHMS-Series, Hydraulic Master Puller Sets

Hydraulic Master Pullers Sets include LGH-hydraulic puller, pump, gauge and HC7206C hydraulic hose.
Choose pump options below.

WARNING!

Enerpac hydraulic pullers can be operated upto 700 bar. When using accessories, hydraulic pressure MUST BE LIMITED to maximum capacities below.

▼ **SELECTION CHART**

Hydraulic Puller Capacity	Hydraulic Master Puller Sets Model Numbers				Master Puller Sets include following components					
						Hydraulic 3-Jaws Puller	Maximum Capacity Accessories	Cross Puller Model Nr.	Bearing Separator Model Nr.	Bearing Cup Puller Model Nr.
	Hand Pump P392 Gauge Ass'y GA45GC	Air Pump XA11G Integrated Gauge	Electric Pump PUD1300E* Gauge G2535L	Cordless Pump XC1201ME* Gauge Ass'y GA45GC	Hydraulic Hose Model Nr.					
US ton (kN)							US-ton (kN)			
10 (92)	LGHMS310H	LGHMS310A	LGHMS310EE*	LGHMS310CE*	HC7206C	LGH310	**7** (75)	BHP112	BHP181	BHP180
14 (125)	LGHMS314H	LGHMS314A	LGHMS314EE*	LGHMS314CE*	HC7206C	LGH314	**7** (75)	BHP172	BHP282	BHP190
24 (215)	LGHMS324H	LGHMS324A	LGHMS324EE*	LGHMS324CE*	HC7206C	LGH324	**12** (107)	BHP272	BHP292	BHP280
64 (576)	LGHMS364H	LGHMS364A	LGHMS364EE*	LGHMS364CE*	HC7206C	LGH364	**25** (227)	BHP672	BHP682	BHP580

* **E** = for 230V applications. For 115V applications change last suffix from E into **B**. Example: **LGHMS310CB**.

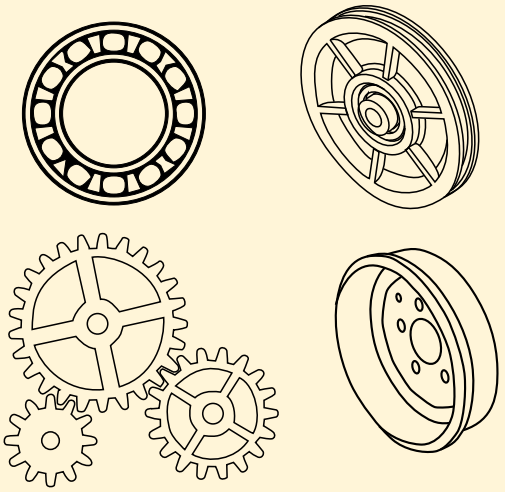
Overview and Dimension Guide

The Enerpac Sync-Grip multi-purpose puller range is designed to make your jobs easier and safer to accomplish.

Remove bearings, bushings, gears, sleeves, wheels and flywheels, sprockets and other shaft mounted items simply and effectively.

Mechanical and hydraulic configurations are available with a variety of optional accessories that expand application range and increase utility.

Hydraulic models are available in standard sets which include detachable hydraulic cylinders and a choice of pump options, along with a gauge assembly and hose for safe monitoring of applied pulling forces.



IMPORTANT!
Always wear Safety Goggles and Gloves while using pullers.

WARNING!
Do not exceed 50% of the rated puller capacity when using two jaw configurations.

▼ **OVERVIEW AND DIMENSION GUIDE**

Puller Capacity (ton)	Puller Model Number	Sync Grip Pullers Dimensions (mm) With Standard Jaws Max. Reach A	With Standard Jaws Max. Spread B	With Optional Extended Jaws Max. Reach A	With Optional Extended Jaws Max. Spread B	Jaw Tip Height D	Jaw Tip Width E	Jaw Tip Thick-ness F	Jaw Hole Spacing H	(kg**)	Page:
Mechanical Pullers											
1	**SGM01 ***	105	110	–	–	8,0	7,0	7,5	19,0	0,8	**174** ▶
4	**SGM04 ***	185	175	–	–	7,5	8,0	21,0	51,0	2,0	**174** ▶
7	**SGM07 ***	225	240	–	–	10,0	8,0	25,0	44,5	6,5	**174** ▶
10	**SGM10 ***	410	350	490	405	12,5	15,0	25,0	83,0	14,5	**174** ▶
20	**SGM20**	600	680	640	720	22,0	24,0	41,0	125,0	55,5	**174** ▶
Hydraulic Pullers											
13	**SGH14**	320	350	400	405	12,5	15,0	25,0	83,0	25	**175-176** ▶
22	**SGH24**	320	480	435	540	15,5	17,5	31,0	115,0	49	**175-176** ▶
33	**SGH36**	410	650	525	720	22,0	24,0	41,0	125,0	75	**175-176** ▶
45 **	**SGH64**	700	980	850	1080	30,0	27,0	50,0	150,0	165	**175-176** ▶
100	**SGH100**	1000	1600	–	–	46,0	49,0	70,0	250,0	322	**177** ▶

* Puller can be set up as a 2 or 3 jaw configuration.
** Puller capacity at 540 bar, maximum cylinder capacity at 700 bar is 54 ton.
** Weight of SGH-models with standard legs and hydraulic cylinder.

SG-Series Sync-Grip Pullers: available in both mechanical or hydraulic versions. Some models can be configured as a two jaw puller, however, three jaws are recommended for most even distribution of pulling forces.

BHP-Cross Puller: hydraulically powered via detachable cylinder and choice of pump. The Cross Puller can be used individually as a 'push' puller or in conjunction with the Bearing Separator or Bearing Cup Puller.

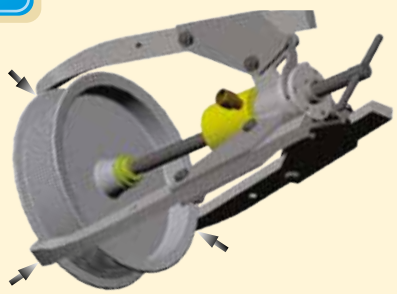
BHP-Bearing Separator: use where access is restricted. The Bearing Separator is used in conjunction with the Cross Puller.

BHP-Bearing Cup Puller: specifically designed for cup style bearing and other applications requiring an internal style puller.

Detachable RCH-Hollow Cylinder: provided with all hydraulic puller models including both the standard Sync Grip and Cross Puller.

In Sync-Grip, Cross Bearing and Master Puller Sets a hose and gauge are provided as standard along with your choice of pump including manual hand operated, cordless battery powered, electric or air powered. In each case the pump selection has been optimized for compatibility with the pullers.

Easy To Use

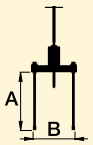


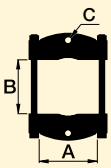
Simple, Safe, Productive

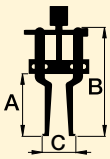
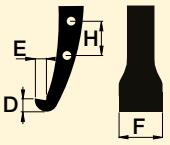
All three jaws close simultaneously making the puller easier and safer to operate.

The synchronous feature of the SGM and SGH-Series Sync-Grip Pullers makes positioning the puller simple and helps prevent misalignment.

▼ OVERVIEW AND DIMENSION GUIDE

Puller Capacity	Cross Bearing Pullers Dimensions (mm)			
				
	Standard Leg Height	Long Leg Height	Max. Spread	
(ton)	A	A	B	(kg**)
Mechanical Pullers				
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
Hydraulic Pullers				
13	106	357	260	18,5
22	115	570	345	34,5
33	205	710	440	56,0
45 *	609	864	580	113,5
–	–	–	–	–

Bearing Separators Dimensions (mm)				
				
Dia-meter	Min. Spread	Max. Spread	Thread Size	
A	B	B	C	(kg)
Mechanical Pullers				
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
Hydraulic Pullers				
110	10	110	⅝"-18UNF	2,7
155	12	134	⅝"-18UNF	5,7
260	17	250	1"-14UNS	28,5
260	17	250	1¼"-12UNF	28,5
–	–	–	–	–

Bearing Cup Pullers Dimensions (mm)							
							
Height	Height	Min. Spread	Max. Spread	Tip Height	Tip Width	Thick-ness	
A	B	C	C	D	E	F	(kg)
Mechanical Pullers							
–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–
Hydraulic Pullers							
115	237	40	145	5,0	4,5	31	2,0
140	266	32	160	4,5	4,5	25	2,4
150	310	60	240	8,0	11,0	55	6,0
150	310	60	240	8,0	11,0	55	6,4
–	–	–	–	–	–	–	–

** With standard legs and hydraulic cylinder.

SGM-Series, Mechanical Sync-Grip Pullers

ENERPAC

▼ SGM10 Mechanical Sync-Grip Puller with three jaws

SGM
Series

Puller Capacity:
1 - 20 ton

Maximum Reach:
105 - 600 mm

Maximum Spread:
110 - 680 mm

- **Sync-Grip mechanism synchronizes movement of all jaws for simultaneous engagement, helping to prevent misalignment for safe and easy use**
- **Threaded spindle and jaw indexes provide adjustable reach**
- **Three-jaw configuration for even load distribution**
- **Two-jaw configuration for confined access applications available on pullers of 1 to 10 ton (not available on SGM20)**
- **High-strength forged jaws for superior reliability**
- **Suitable for a variety of applications including bearings, bushings, wheels, gears and pulleys.**

Dimensions
Dimensional information for all puller models is included in the dimensional overview and dimension guide.

Page: 172

IMPORTANT!
Always wear Safety Goggles and Gloves while using pullers.

WARNING!
Do not exceed 50% of the rated puller capacity when using two jaw configurations.

▼ *SGM10 with two jaws.*

▼ **SELECTION CHART**

Puller Capacity (ton)	3-Jaw Puller Model Number	Max. Reach A (mm)	Max. Spread B (mm)	(kg)	Optional Long Jaw Sets (3 jaws) Model Number	Max. Reach A (mm)	Max. Spread B (mm)
1	SGM01 *	105	110	0,8	–	–	–
4	SGM04 *	185	175	2,0	–	–	–
7	SGM07 *	225	240	6,5	–	–	–
10	SGM10 *	410	350	14,5	SG1002K	490	405
20	SGM20	600	680	55,5	SG3002K	640	720

* Can be configurated into 2-jaw puller.

Hydraulic Sync-Grip Master Puller Sets

▼ **MPS14H**

MPS, SGH Series

Puller Capacity:
13 - 45 ton

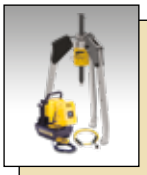
Maximum Reach:
320 - 700 mm

Maximum Spread:
350 - 980 mm

Maximum Operating Pressure:
700 bar

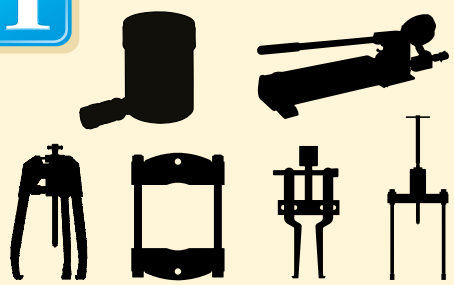
- **Sync-Grip mechanism synchronizes movement of all jaws for simultaneous engagement**
- **Hydraulically applied pulling force increases pulling capacity reducing operator fatigue**
- **Standard jaws adjust to accommodate different reach requirements. Optional long jaws sets available for additional reach requirements**
- **Designed for applications including pulling, pushing and dismounting gears, bearings, bushings, etc.**

Dimensions
Dimensional information for all puller models is included in the dimensional overview and dimension guide.
Page: 172



100 ton Sync-Grip Puller Sets
The hydraulic SGH-puller is also available with 100 ton capacity.
Page: 177

Master Puller Sets include: [1]



[1] Choose pump options below.

▼ **SELECTION CHART**

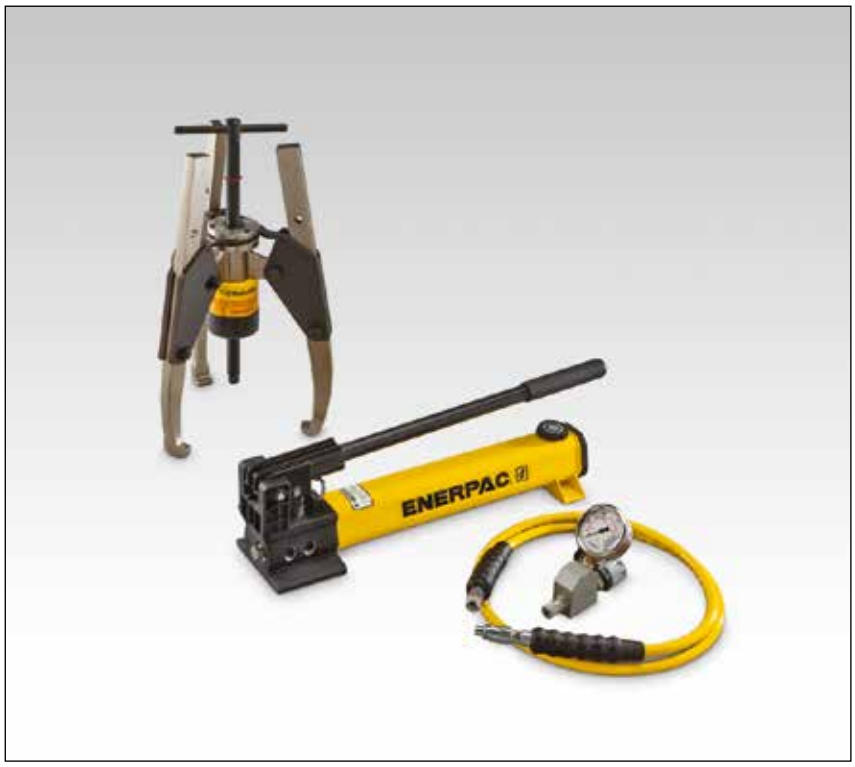
Puller Capacity (ton)	3-Jaw Puller only Model Number *	Cylinder Stroke (mm)	Max. Reach A (mm)	Max. Spread B (mm)	(kg)	Model Numbers Hydraulic Sync-Grip Master Puller Sets					Optional Long Jaw Sets (3 jaws) Model Number	Max. Reach A (mm)	Max. Spread B (mm)
						Hand Pump	Air Driven Foot Pump	Electric Pump [3]	Cordless Pump [3]	All Sets include			
13	SGH14	25	320	350	25	MPS14H	MPS14A	MPS14E	MPS14C	[1]	SG1002K	400	405
22	SGH24	49	320	480	49	MPS24H	MPS24A	MPS24E	MPS24C	GA45GC with HC7206C	SG2002K	435	540
33	SGH36	64	410	650	75	MPS36H	MPS36A	MPS36E	MPS36C		SG3002K	525	720
45 [2]	SGH64	76	700	980	165	MPS64H	MPS64A	MPS64E	MPS64C		SG6002K	850	1080

[1] 13 ton sets include an AR630 female coupler, GA45 gauge adaptor and G2535L gauge.
[2] Puller capacity at 540 bar; maximum cylinder capacity is at 700 bar is 60 ton.
[3] For 115 Volt application with eletric pump add suffix "**B**" to model nr; example **MPS24EB**
For 230 Volt application with cordless pump add suffix "**E**" to model nr; example **MPS14CE**

Hydraulic Sync-Grip Puller Sets

ENERPAC

▼ GPS14H Hydraulic Sync-Grip Puller Set



GPS, SGH Series

Puller Capacity:
13 - 45 ton

Maximum Reach:
320 - 700 mm

Maximum Spread:
350 - 980 mm

Maximum Operating Pressure:
700 bar

- **Sync-Grip mechanism synchronizes movement of all jaws for simultaneous engagement**
- **Hydraulically applied pulling force increases pulling capacity and reduces operator fatigue**
- **Threaded spindle and jaw indexes provide adjustable reach**
- **Three jaw configuration for even load distribution**
- **High strength forged jaws for superior reliability**
- **The versatile puller set facilitates safe and easy dismounting in a variety of applications.**

Dimensions
Dimensional information for all puller models is included in the dimensional overview and dimension guide.

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IMPORTANT!
Always wear Safety Goggles and Gloves while using pullers.

Grip Puller Sets include: [1]

[1] Choose pump options below.

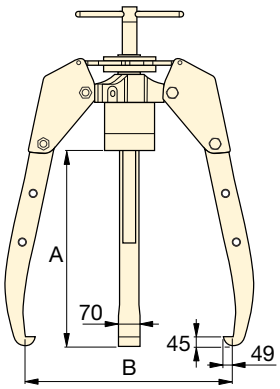
▼ SELECTION CHART

Puller Capacity (ton)	3-Jaw Puller only Model Number *	Cylinder Stroke (mm)	Max. Reach A (mm)	Max. Spread B (mm)	(kg)	Model Numbers Hydraulic Sync-Grip Puller Sets					Optional Long Jaw Sets (3 jaws) Model Number	Max. Reach A (mm)	Max. Spread B (mm)
						Hand Pump P142	Air Driven Foot Pump XA11G	Electric Pump [3] PUD1300	Cordless Pump [3] XC1201M	All Sets include			
13	SGH14	25	320	350	25	GPS14H	GPS14A	GPS14E	GPS14C	[1]	SG1002K	400	405
22	SGH24	49	320	480	49	GPS24H	GPS24A	GPS24E	GPS24C	GA45GC + HC7206C	SG2002K	435	540
33	SGH36	64	410	650	75	GPS36H	GPS36A	GPS36E	GPS36C		SG3002K	525	720
45 [2]	SGH64	76	700	980	165	GPS64H	GPS64A	GPS64E	GPS64C		SG6002K	850	1080

[1] 13 ton sets include an AR630 female coupler, GA45 gauge adaptor and G2535L gauge.
[2] Puller capacity at 540 bar; maximum cylinder capacity is at 700 bar is 60 ton.
[3] For 115 Volt application with eletric pump add suffix "**B**" to model nr; example **GPS24EB**
For 230 Volt application with cordless pump add suffix "**E**" to model nr; example **GPS14CE**

▼ SGH100 100 ton Hydraulic Sync-Grip Puller

- **Sync-Grip mechanism synchronizes movement of all jaws, providing enhanced control of pulling process**
- **No need to cut, heat or torch components for removal, resulting in safer environment for operator, and preventing damage to equipment**
- **A hydraulically applied pulling force of up to 100 ton allows a traditionally strenuous task to be completed at the push of a button**
- **Provides 100 ton pulling force at a fraction of the price of alternative solutions**
- **One SGH10004 point protector is included with each SGH100.**



Number of Jaws	Capacity ton (kN)	Model Number *	Maximum Reach A (mm)	Maximum Spread B (mm)	Cylinder Stroke (RCH1003) (mm)	(kg)
3	**100** (980)	**SGH100**	1000	1600	76	322

* Available as complet set. Total set weight 459 kg.

SGH, GPS Series

Capacity:
100 ton

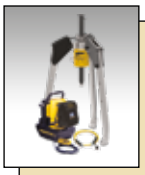
Maximum Reach:
1000 mm

Spread Range:
1600 mm

Maximum Operating Pressure:
700 bar

Sync-Grip Puller – Simple, synchronous movement

The Sync Grip mechanism synchronizes movement of all jaws for simultaneous engagement, allowing one operator to mount the tool and perform the pulling application. Hydraulically applied pulling force increases pulling capacity and reduces operator fatigue, enabling quicker and easier set up.



100 ton Sync-Grip Puller Sets

For ordering convenience the SGH100 is avalaible as complete set with HC7606C hose, GA45GC gauge adapter assembly and ZE3304S electric pump.

Model Nr.	Description
GPS100EB	Set with 115 V pump
GPS100EE	Set with 230 V pump

Point Protector

To prevent damage a point protector must be used if the shaft end does not have a drilled center hole.

Model Nr.	Description
SGH10004	Point protector for SGH100