

IMPACT FITTING TOOL SELECTION GUIDE

SLEEVE	RING	ALL ISO BEARING CODES ENDING WITH	60, 62 63, 64	12, 22 13, 23	70, 72B 73B	32, 33	222, 213 223	NU, NJ N 2 3 4	302, 322 303, 330	320, 313 323, 332
A1	10-26	000	6000	129	7000					
	10-30	200	6200	1200		3200				
			2200							
	10-35	300	6300	1300	7300					
	12-28	001	6001							
	12-32	201	6201	1201		3201				
			2201							
	12-37	301	6301	1301	7301					
			2301							
	15-32	002	6002							
15-35	202	6202	1202	7202B	3202					
		2202								
15-42	302	6302	1302		3302			30302		
		2302								
17-35	003	6003								
		16003								
17-40	203	6203	1203	7203B	3203			30203		
		2203								
17-47	303	6303	1303	7303B	3303			30303	32303	
		2303								
B2	20-42	004	6004		7004					32004
	20-47	204	6204	1204	7204B	3204		204	30204	
			2204							
	20-52	304	6304	1304	7304B	3304	21304	304	30304	32304
		403	6403	2304						
	25-47	005	6005		7005					32005
	25-52	205	6205	1205	7205B	3205	22205	205	30205	33205
			2205					32205		
	25-62	305	6305	1305	7305B	3305	21305	305	30305	31305
		404	6404	2305						32305
30-55	006	6006							32006	
30-62	206	6206	1206	7206B	3206	22206	206	30206	33206	
		2206					32206			
30-72	306	6306	1306	7306B	3306	21306	306	30306	31306	
	405	6405	2206				405		32306	
C3	35-62	007	6007		7007					32007
	35-72	207	6207	1207	7207B	3207	22207	207	30207	33207
			2207					32207		
	35-80	307	6307	1307	7307B	3307	21307	307	30307	31307
		406	6406	2307				406		32307
	40-68	008	6008							32008
	40-80	208	6208	1208	7208B	3208	22208	208	30208	33208
								32208		
	40-90	308	6308	1308	7308B	3308	21308	308	30308	31308
		407	6407	2308				407		32308
45-75	009	6009							32009	
45-85	209	6209	1209	7209B	3209	22209	209	30209	33209	
		2209					32209			
45-100	309	6309	1309	7309B	3309	21309	309	30309	31309	
	408	6408	2309				408		32309	
50-80	010	6010							33010	
50-90	210	6210	1210	7210B	3210	22210	210	30210	33210	
		2210					32210			
50-110	310	6310	1310	7310B	3310	21310	310	JM205149/JM205110 30310	31310	
	409	6409	2310				409		32310	
<i>Impact rings 50-90, 45-100, 50-110 also fit the following bearing where only the outer ring is to be fitted, e.g., shaft not installed:</i>										
C3	50-90		6011							
			6012							
	45-100		6013	1211	7211B	3211	22211	211		
			6211	2211	7212B					
	50-110		6014	1212	7213B	3212	22212	212		
			6015	1213		3213	22213	213		
			6212	2213		3211	21311	311		
			6213	2213			22311	410		
			6311	1311						
			6410	2311						

For tapered bearings, impact rings fit outer ring and also inner ring if driving from large-diameter side. The numbers on each impact ring (e.g., 25-62) are clearly marked on the ring. The first figure refers to shaft diameter, the second to bearing outer diameter.

HYDRAULIC & SELF-CENTERING HYDRAULIC PULLERS

Timken carries a wide range of self-contained portable hydraulic and mechanical pulling systems that have capacities from four to 30 tons. They are ideal for removing all kinds of shaft-fitted parts.

Advantages

- Self-centering pullers avoid damage to parts as the applied force is distributed evenly. Integrated pump, cylinder, hose and puller with safety-release valve.
- Compact design: The self-contained hydraulic pump and puller saves space.
- Sets are supplied in a handy carrying case.
- Multi-purpose: Ideal for pulling a wide variety of press-fit parts including bearings, wheels, bushings, gears and pulleys.
- The pump handle rotates 360-degrees, enabling users to pull from the most convenient position.
- Pullers can be used with two or three legs.
- Available with accessories.

Warning Information for Pullers

See additional warnings on page 2.

- Check condition of puller before use.
- Exchange for new parts, any parts having indications of wear and tear, such as ground down parts, overloaded parts or worn-out parts.
- Do not use a hammer when operating spindle.
- If any indications of overload, stiff working, etc., occur during pulling, stop the procedure at once. Try to use a larger or different type of puller if necessary.
- For proper puller engagement, the jaws/legs must be centered.
- When pulling, make sure puller and pulled parts are kept covered by the safety blanket to provide protection from injury caused by flying fragments from broken parts.
- When operating the puller, wear protective clothing, including safety shoes, protective glasses, gloves and helmet.
- Keep spindle and puller body clean and oiled.
- Avoid puller overload, as it can result in breakage of the puller's arms and/or beam.
- This breakage can cause damage to the puller, shaft and bearing as well as death or serious personal injury.



Self-Centering Hydraulic Pullers

The same power as our standard models, but with the added convenience of hand operation. No more fumbling to engage the puller to the part. Self-centering makes pulling shaft-fitting parts easy. Self-centering hydraulic pullers come preassembled.



SELF-CENTERING HYDRAULIC PULLERS

MODEL	MAX. WITHDRAWAL FORCE	ARM LENGTH	WIDTH OF GRIP	STROKE WIDTH	A	B	C	D	E	F	G	WEIGHT
VHPS4	4 t	190 mm (7.48 in.)	315 mm (12.4 in.)	60 mm (2.4 in.)	13 mm (0.5 in.)	10 mm (0.4 in.)	22 mm (0.9 in.)		40 mm (1.6 in.)	42 mm (1.7 in.)	22 mm (0.9 in.)	8 kg (18 lbs.)
VHPS6A	6 t	230 mm (9.1 in.)	390 mm (15.4 in.)	70 mm (3.4 in.)	13 mm (0.5 in.)	10 mm (0.4 in.)	22 mm (0.9 in.)		50 mm (2 in.)	45 mm (1.8 in.)	23 mm (0.9 in.)	10 kg (22 lbs.)
VHPS8	8 t	280 mm (11 in.)	460 mm (18.1 in.)	85 mm (3.4 in.)	13 mm (0.5 in.)	13 mm (0.5 in.)	27.5 mm (1.1 in.)		70 mm (2.7 in.)	50 mm (2 in.)	25 mm (1 in.)	12 kg (26 lbs.)
VHPS12	12 t	300 mm (11.8 in.)	515 mm (20.3 in.)	85 mm (3.4 in.)	15 mm (0.6 in.)	16.5 mm (0.7 in.)	29 mm (1.1 in.)		70 mm (2.7 in.)	60 mm (2.4 in.)	28 mm (1.1 in.)	15 kg (33 lbs.)
VHPS20	20 t	325 mm (12.8 in.)	520 mm (20.5 in.)	111 mm (4.4 in.)	20 mm (0.8 in.)	27 mm (1.1 in.)	33 mm (1.3 in.)		62 mm (2.4 in.)	80 mm (3.2 in.)	40 mm (1.6 in.)	25 kg (55 lbs.)
VHPS30	30 t	415 mm (16.3 in.)	620 mm (24.4 in.)	111 mm (4.4 in.)	20 mm (0.8 in.)	27 mm (1.1 in.)	38 mm (1.5 in.)		85 mm (3.3 in.)	98 mm (3.9 in.)	50 mm (2 in.)	36 kg (80 lbs.)

HYDRAULIC PULLERS

MODEL	MAX. WITHDRAWAL FORCE	1	2	3	A	B	C	D	E	F	G	WEIGHT
VHPT4	4 t	185 mm (7.3 in.)	255 mm (10.0 in.)	60 mm (2.4 in.)	11 mm (0.4 in.)	6 mm (0.2 in.)	22 mm (0.9 in.)	32 mm (1.3 in.)	84 mm (3.3 in.)	42 mm (1.7 in.)	22 mm (0.9 in.)	4.5 kg (9.9 lbs.)
VHPT6A	8 t	220 mm (8.7 in.)	330 mm (13.0 in.)	70 mm (2.8 in.)	13 mm (0.5 in.)	10 mm (0.4 in.)	25 mm (1.0 in.)	51 mm (2.0 in.)	122 mm (4.8 in.)	65 mm (2.6 in.)	25 mm (1.0 in.)	6.5 kg (14.3 lbs.)
VHPT8	8 t	230 mm (9.1 in.)	350 mm (13.8 in.)	85 mm (3.4 in.)	11 mm (0.4 in.)	10 mm (0.4 in.)	25 mm (1.0 in.)	51 mm (2.0 in.)	122 mm (4.8 in.)	50 mm (2.0 in.)	25 mm (1.0 in.)	6.5 kg (14.3 lbs.)
VHPT12	12 t	270 mm (10.6 in.)	375 mm (14.8 in.)	85 mm (3.4 in.)	14 mm (0.6 in.)	10 mm (0.4 in.)	29 mm (1.1 in.)	51 mm (2.0 in.)	118 mm (4.6 in.)	60 mm (2.4 in.)	28 mm (1.1 in.)	8 kg (17.6 lbs.)
VHPT20	20 t	360 mm (14.2 in.)	520 mm (20.5 in.)	111 mm (4.4 in.)	20 mm (0.8 in.)	27 mm (1.1 in.)	33 mm (1.3 in.)	60 mm (2.4 in.)	161 mm (6.3 in.)	80 mm (3.2 in.)	40 mm (1.6 in.)	22 kg (48.5 lbs.)
VHPT30	30 t	360 mm (14.2 in.)	550 mm (21.7 in.)	111 mm (4.4 in.)	20 mm (0.8 in.)	27 mm (1.1 in.)	38 mm (1.5 in.)	60 mm (2.4 in.)	155 mm (6.1 in.)	98 mm (3.9 in.)	50 mm (2.0 in.)	32 kg (70.6 lbs.)

FITS BOTH SELF-CENTERING AND STANDARD HYDRAULIC PULLERS.

SPLITTER ACCESSORY SETS (HYDRAULIC PUMP NOT INCLUDED)

	PULLER	ARM LENGTH	WIDTH OF GRIP	MIN. O.D.	MAX. O.D.	WEIGHT
VHPT490*	VHPT4	250 mm (9.8 in.)	110 mm (4.3 in.)	25 mm (1.0 in.)	110 mm (4.3 in.)	6.5 kg (14.3 lbs.)
VHPT690A*	VHPT6	270 mm (10.6 in.)	220 mm (8.7 in.)	50 mm (2.0 in.)	180 mm (7.1 in.)	8.5 kg (18.7 lbs.)
VHPT890*	VHPT8	270 mm (10.6 in.)	210 mm (8.3 in.)	50 mm (2.0 in.)	220 mm (8.7 in.)	5.5 kg (12.1 lbs.)
VHPT1290*	VHPT12	380 mm (15.0 in.)	290 mm (11.4 in.)	80 mm (3.2 in.)	290 mm (11.4 in.)	13.0 kg (28.7 lbs.)

* Will work with VHPT/VHIS series.

MECHANICAL PULLERS

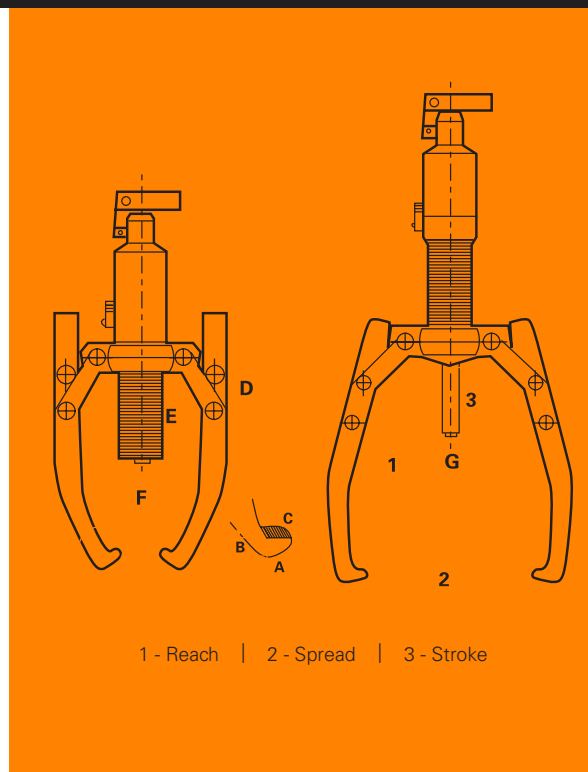
After the required type of puller has been identified, it is easy to choose the most suitable model from the series listed in the catalog.

Please note that understanding the work space and possibility of gripping will insure proper fit of grip.

Compare size and measurement of the part to be removed to the values indicated in the table (below) to choose the suitable puller. The choice of mechanical puller depends also on required pulling force.

The most important factor is safety: always choose a larger or stronger puller. Three-arm pullers better distribute the pulling force than two-arm devices, therefore; if there is enough space, three-arm pullers should be the first choice.

For safety purposes and service life of the puller, never exceed the maximum capacity. The capacity data has been determined for new pullers. Normal wear and tear in practice and damage may decrease these figures.



MECHANICAL PULLERS

MODEL	MAX. WITHDRAWAL FORCE	ARM LENGTH	WIDTH OF GRIP	STROKE WIDTH	A	B	C	D	E	F	G	WEIGHT
VMPS2	2 t	80 mm (3.1 in.)	120 mm (4.7 in.)		8 mm (0.3 in.)	6 mm (0.2 in.)	15 mm (0.6 in.)				16 mm (0.625 in.)	1.6 kg (3.5 lbs.)
VMPS3	3 t	120 mm (4.7 in.)	180 mm (7.1 in.)		6 mm (0.2 in.)	7 mm (0.3 in.)	15 mm (0.6 in.)				16 mm (0.625 in.)	2.3 kg (5.1 lbs.)
VMPS5	5 t	160 mm (6.3 in.)	270 mm (10.6 in.)		11 mm (0.4 in.)	10 mm (0.4 in.)	25 mm (1 in.)				19 mm (.75 in.)	4.3 kg (9.5 lbs.)
VMPS8	8 t	210 mm (8.3 in.)	300 mm (11.8 in.)		13 mm (0.5 in.)	14 mm (0.6 in.)	27 mm (1.1 in.)				19 mm (.75 in.)	6.1 kg (13.4 lbs.)

