
AJH-620

AJS-65

AJS-104

# AJH und AJS
# Aluminium hydraulic jacks

## Capacity 6.5 - 100 t

Aluminium jacks combine light weight with high lifting capacity. The use of high tensile aluminium alloy allows lifting capacities of up to 100 tons resulting in a very favourable 1.8 tons lifting capacity per 1 kg weight ratio. Operation of Yale hydraulic jacks is very simple. Jacks are supplied ready for use, i.e. including hydraulic oil, operating lever and, where applicable, carrying handle and lifting claw.

## Aluminium jacks with lifting claw

Jacks from 20 tons are available with a lifting claw. In this case the jacks are provided with an elongated base plate. The max. permissible working load of the lifting claws is 40 % of the jack capacity.

## Aluminium jacks with safety lock nut

Jacks from 20 tons can be supplied with a safety lock nut. This device allows absolute safe jacking over a long period. In this case the hydraulic jack can be operated like a mechanical support and the hydraulic system can be totally released.

## Application

Hydraulic jacks are universally popular tools for use in workshops or on site for all kinds of lifting and assembly applications, for construction, shipbuilding, power plants, general engineering, metal fabrication and many more. Applications are unlimited. Standard jacks with plain piston and jacks with safety lock nuts cannot be used with a lifting claw. To increase stability, all jacks with long stroke (305 mm) are equipped with an elongated base plate.

## Features

- Strokes from 75 - 305 mm.
- Extremely low weight.
- The 6.5 and 10 tons jacks can be operated in any position (also upside down) and are equipped with spring return piston and stop ring.
- The 20 to 100 tons jacks can be operated vertically or with front face in horizontal position.
- All jacks are provided with an overload protection valve.
- From 20 tons capacity with additional mechanical stroke limiter.
- All jacks with hardened alloy steel saddle and sensitive lowering valve which is activated by the operating lever.

AJH-630 SR

## Technical data AJH and AJS

| Model | Art.-No. | Capacity t | Capacity of lifting claw max. t | Stroke mm | Overall height mm | Base plate mm | Height of lifting claw min. mm | Weight kg |
|---|---|---|---|---|---|---|---|---|
| AJS-65 | N13200950 | 6,5 | – | 75 | 131 | 159 x 76 | – | 3.6 |
| AJS-104 | N13200951 | 10 | – | 115 | 182 | 171 x 76 | – | 6.3 |
| AJH-620 | N13200952 | 20 | – | 152 | 265 | 180 x 120 | – | 10.9 |
| AJH-1220 | N13200955 | 20 | – | 305 | 440 | 250 x 120 | – | 16.7 |
| AJH-630 | N13200958 | 30 | – | 152 | 265 | 200 x 140 | – | 15.4 |
| AJH-1230 | N13200961 | 30 | – | 305 | 452 | 275 x 140 | – | 23.4 |
| AJH-660 | N13200964 | 60 | – | 152 | 293 | 250 x 190 | – | 27.4 |
| AJH-1260 | N13200967 | 60 | – | 305 | 500 | 340 x 190 | – | 43.7 |
| AJH-6100 | N13200970 | 100 | – | 152 | 315 | 305 x 250 | – | 49.0 |

## Jacks with lifting claw

| Model | Art.-No. | Capacity t | Capacity of lifting claw max. t | Stroke mm | Overall height mm | Base plate mm | Height of lifting claw min. mm | Weight kg |
|---|---|---|---|---|---|---|---|---|
| AJH-620 C | N13200953 | 20 | 8 | 152 | 280 | 250 x 120 | 67 | 14.5 |
| AJH-1220 C | N13200956 | 20 | 8 | 305 | 452 | 250 x 120 | 67 | 22.2 |
| AJH-630 C | N13200959 | 30 | 12 | 152 | 284 | 275 x 140 | 72 | 20.3 |
| AJH-1230 C | N13200962 | 30 | 12 | 305 | 472 | 275 x 140 | 72 | 31.0 |
| AJH-660 C | N13200965 | 60 | 24 | 152 | 327 | 340 x 190 | 72 | 43.1 |
| AJH-1260 C | N13200968 | 60 | 24 | 305 | 533 | 340 x 190 | 72 | 64.9 |

## Jacks with safety lock nut

| Model | Art.-No. | Capacity t | Capacity of lifting claw max. t | Stroke mm | Overall height mm | Base plate mm | Height of lifting claw min. mm | Weight kg |
|---|---|---|---|---|---|---|---|---|
| AJH-620 SR | N13200954 | 20 | – | 152 | 291 | 180 x 120 | – | 10.9 |
| AJH-1220 SR | N13200957 | 20 | – | 305 | 464 | 250 x 120 | – | 16.7 |
| AJH-630 SR | N13200960 | 30 | – | 152 | 294 | 200 x 140 | – | 15.4 |
| AJH-1230 SR | N13200963 | 30 | – | 305 | 480 | 275 x 140 | – | 23.4 |
| AJH-660 SR | N13200966 | 60 | – | 152 | 330 | 250 x 190 | – | 27.4 |
| AJH-1260 SR | N13200969 | 60 | – | 305 | 536 | 340 x 190 | – | 43.7 |
| AJH-6100 SR | N13200971 | 100 | – | 152 | 366 | 305 x 250 | – | 53.0 |


Yale

# YAM
# Machine jacks with lifting claw

## Capacity 2 - 15 t

Machine jacks with lifting claw are used in applications where space below the load is restricted, thus preventing the use of traditional lifting equipment.

Typical applications for machine jacks are lifting, positioning and transportation of machines, heavy steel constructions or similar loads, as well as general repair and assembly applications.

The jacks are also useful for applications like leveling of high-rise warehouses, heavy-duty scaffolds, large frame-works etc.


## Features

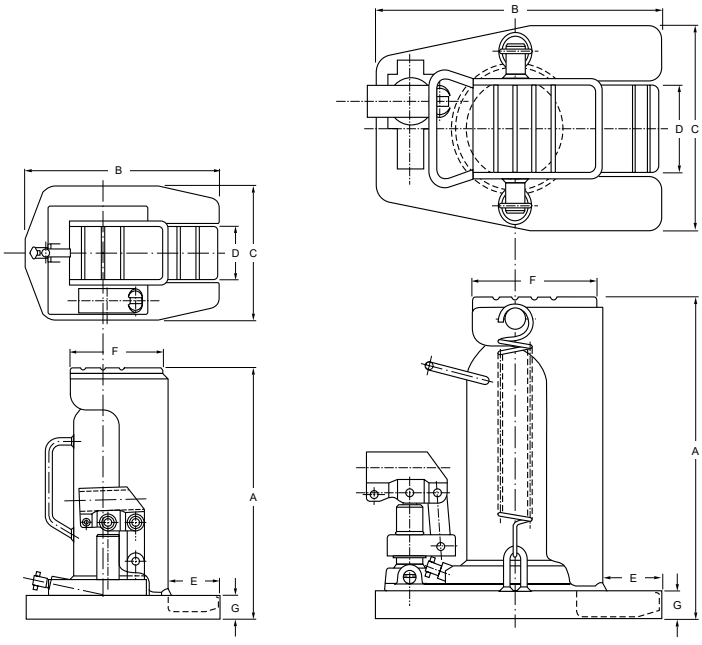
- Offers safe lifting of machines with an extremely low clearance.
- Incl. safety pressure valve to prevent overload.
- Large base offers increased stability under load.
- Pump lever can rotate through 270° (excluding YAM-2).
- Same load can be lifted on either the head or the claw of jack.
- Spring return of the lifting claw (only YAM-5 and YAM-10).
- Precision-adjustable lowering valve.
- Jacks are supplied ready to use incl. pump lever, and are filled with oil.

## Technical data YAM

| Model | Art.-No. | Capacity on the claw t | Stroke mm | Weight kg |
|---|---|---|---|---|
| YAM-2 | N13100912 | 2 | 113 | 8 |
| YAM-5 | N13100627 | 5 | 120 | 19 |
| YAM-10 | N13100628 | 10 | 145 | 38 |
| YAM-15.1 | N13100914 | 15 | 140 | 53 |

## Dimensions YAM

| Model | YAM-2 | YAM-5 | YAM-10 | YAM-15.1 |
|---|---|---|---|---|
| A, mm | 235 | 290 | 325 | 344 |
| B, mm | 180 | 257 | 280 | 321 |
| C, mm | 125 | 182 | 240 | 258 |
| D, mm | 50 | 75 | 100 | 110 |
| E, mm | 50 | 57 | 60 | 60 |
| F, mm | 85 | 117 | 150 | 168 |
| G, mm | 16 | 26 | 33 | 33 |




# YAP
# Hydraulic machine jacks

## Capacity 4.5 - 50 t

Hydraulic machine jacks are designed for the safe lifting and positioning of machines and similar heavy equipment.

## Features

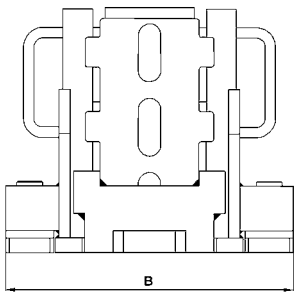
- These jacks are operated with external pumps, e.g. hand or motor pumps but also with synchronous power packs.
- The compact construction allows operation even in extremely confined areas.
- 3 hook-in positions of the lifting claw provide high flexibility (model YAP-5130 4 hook-in positions).
- The load can be lifted with either the lifting claw or with the head of the jack.
- Welded, distortion-proof steel construction.
- High quality, durable hydraulic components.
- The flat lifting claw allows low jacking height.
- Safe stability due to swivel-mounted support feet.
- The connection between jack and pump is made by a hydraulic hose.
- The jacks are delivered ready-to-use inclusive of carrying handles and coupling half.

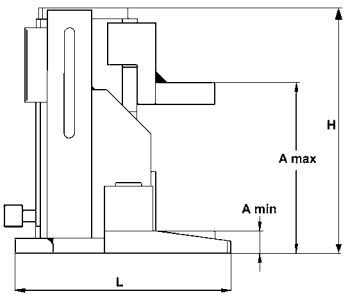
## Technical data YAP

| Model | Art.-No. | Capacity t | Stroke mm | Height for applications min. in mm | Pressure max. bar | Weight approx. kg |
|---|---|---|---|---|---|---|
| YAP-5130 | N13101114 | 4,5 | 133 | 15 | 700 | 13.5 |
| YAP-10150 | N13101115 | 10 | 155 | 20 | 700 | 23.0 |
| YAP-15150 | N13101116 | 15 | 155 | 25 | 700 | 40.0 |
| YAP-25150 | N13101117 | 23 | 155 | 30 | 700 | 60.0 |
| YAP-50150 | N13101118 | 50 | 155 | 35 | 700 | 165.0 |

## Dimensions YAP

| Model | YAP-5130 | YAP-10150 | YAP-15150 | YAP-25150 | YAP-50150 |
|---|---|---|---|---|---|
| A min., mm | 15 | 20 | 25 | 30 | 35 |
| A max., mm | 232 | 273 | 291 | 300 | 375 |
| B, mm | 228 | 277 | 328 | 387 | 540 |
| H, mm | 252 | 283 | 316 | 330 | 405 |
| L, mm | 161 | 194 | 245 | 278 | 375 |



# YAS
# Hydraulic machine jacks

## Capacity 3 - 25 t

Hydraulic machine jacks are designed for the safe lifting and positioning of machines and similar heavy equipment.


## Features

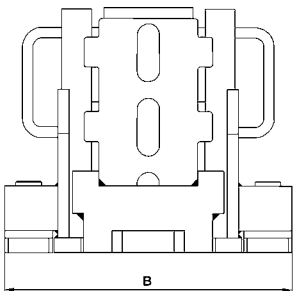
- Integrated hydraulic pump.
- Pump lever swivel mounted 270° for operation even in extremely confined areas.
- Same load can be lifted on either the head or the claw of jack.
- Welded, distortion-proof steel construction.
- High quality, durable hydraulic components.
- The flat lifting claw allows low jacking height.
- The additional connect coupler (10 t capacity and larger) for external pump operation, allows connection of hand, motor or synchronous lifting pumps (max. pressure 520 bar).
- Safe stability due to swivel-mounted support feet.
- Sensitive lowering valve for slow lowering of loads without jerks.
- When operating the jack with an external pump the installation of a manometer is mandatory.
- The integrated hydraulic pump is protected by a pressure-limiting valve.
- The jacks are delivered ready-to-use inclusive of carrying handles, hydraulic oil filling and pump lever.
- YAS-15 and YAS-25 with twin pump for higher lifting speed as well as wheels for easy transportation.

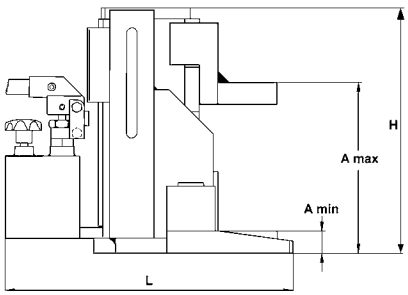
## Technical data YAS

| Model | Art.-No. | Capacity t | Stroke mm | Height for applications min. in mm | Pressure max. bar | Weight approx. kg |
|---|---|---|---|---|---|---|
| YAS-3 | N13101119 | 3 | 140 | 12 | 520 | 15.0 |
| YAS-5 | N13101120 | 5 | 140 | 15 | 520 | 19.0 |
| YAS-10 | N13101121 | 10 | 140 | 20 | 520 | 28.0 |
| YAS-15 | N13101122 | 15 | 140 | 25 | 520 | 50.0 |
| YAS-25 | N13101123 | 25 | 140 | 30 | 520 | 72.0 |

## Dimensions YAS

| Model | YAS-3 | YAS-5 | YAS-10 | YAS-15 | YAS-25 |
|---|---|---|---|---|---|
| A min., mm | 12 | 15 | 20 | 25 | 30 |
| A max., mm | 230 | 232 | 300 | 291 | 300 |
| B, mm | 207 | 228 | 277 | 328 | 387 |
| H, mm | 250 | 252 | 252 | 316 | 330 |
| L, mm | 198 | 216 | 271 | 345 | 388 |




# ST
# Hydraulic stage lifts

## Capacity 50 - 100 t

For compact, low-headroom and universal applications. Stage lifts are hydraulic lifting devices which are designed to lift and lower loads over high distances.

Stage lifts overcome the usual limitations of their lifting height imposed by stroke length. Stage lifts operate with "double-acting" hydraulic cylinders (return stroke by hydraulic pressure) and are equipped with a load spreading plate and a piston support plate.

## Operation

A stage lift operates inverted and lifts the load via the bottom of the cylinder whilst it climbs on a pile of support bars (wood or aluminium). In principle, the load can be lifted to any height although stage lifts are still compact and versatile for low-headroom lifting applications.

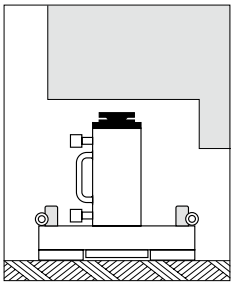
The simple "3-step operation" eliminates the need for additional holding arrangements and the repositioning or replacing of cylinders which are normally required for a higher lifting distance. A stage lift climbs up and down on its own.

## Control

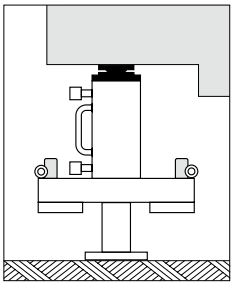
Depending on the power pack, selected stage lifts can be controlled individually (by hand or motor pump) or together in a synchronized arrangement with multi-flow pumps.

## Features

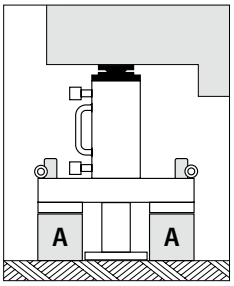
- Yale ChroMo-Design.
- Low-cost lifting systems possible, (3-point resp. 4-point).
- Low weight (e.g. 60 kg for a 50 t unit).
- Stage lift body made from high-grade aluminium.
- Hydraulic cylinders are made from robust chromium-molybdenum steel with double bronze bearings ensure a longlife service system.
- Large-diameter tilt saddle.
- Incl. coupler halves, non-interchangeable on request



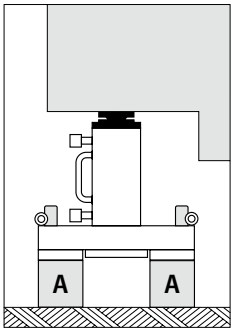
1. Stage: Initial position, stage lift rests on the ground under the load.



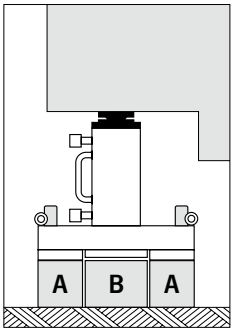
2. Stage: Step 1, load is raised.



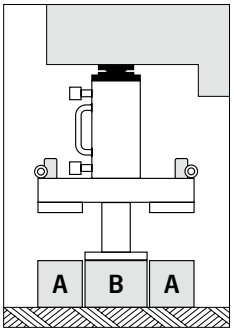

3. Stage: Two support bars type “A” are positioned in place.



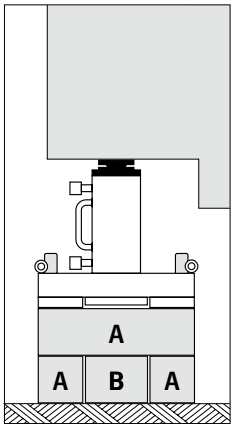

4. Stage: Piston is retracted and load rests on support bars type “A”.



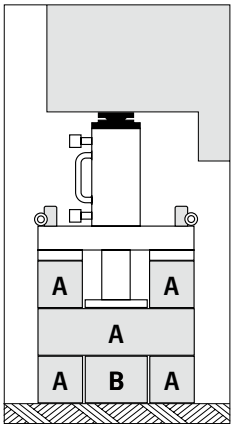

5. Stage: Broader middle bar type “B” is inserted.



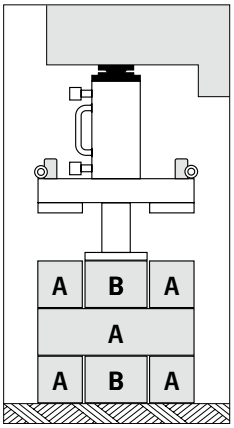

6. Stage: Step 2, load raised on broader middle bar “B”.




7. Stage: Two bars “A” are inserted and rotated at 90°, piston is retracted and middle bar is inserted.



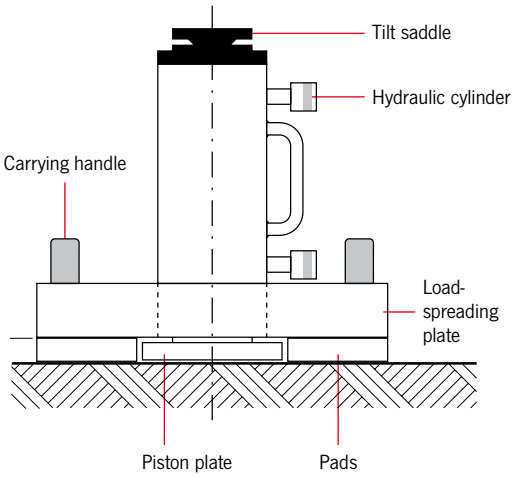

8. Stage: Load is lifted on middle bar (3rd step), two support bars type “A” are positioned at 90° and load rests on support bars “A”.




9. Stage: Piston is retracted, middle bar type “B” is inserted and lifts the 4th step on middle bar “B” and so on...

## Technical data ST

| Model | Art.-No. | Capacity max. t | Stroke mm | Overall height mm | Load-spreading plate Ø mm | Piston plate Ø mm | Weight approx. kg |
|---|---|---|---|---|---|---|---|
| ST-5015 | N15000923 | 50 | 150 | 396 | 425 x 425 | 160 | 60 |
| ST-10015 | – | 100 | 150 | 455 | 525 x 525 | 180 | 115 |



## YHS
## Hydraulic spreader

### Capacity max. 0.5 - 1.5 t

These universal power tools can be used for all repair, maintenance and assembly work requiring precisely controlled power, e.g. aligning of containers and shells, lifting, positioning or aligning of machinery and structural components, forcing-off of shutterings and moulds. Applications are unlimited.
The spreaders can be operated with all hand pumps.

### Features

- Operating pressure max. 700 bar.
- Single-acting with spring return.
- Works in all positions.
- Spreader arms of high-tensile steel.
- Incl. female coupler half CFY-1 with dust cap.

### Technical data YHS

| Model | Art.-No. | Capacity max. kN | Capacity max. t | Operating pressure max. bar | Oil volume max. $cm^3$ | Spread width min. mm | Spread width max. mm | Weight kg |
|---|---|---|---|---|---|---|---|---|
| YHS-05 | N13400910 | 5 | 0.5 | 700 | 10 | 16 | 75 | 1.9 |
| YHS-11 | N13900767 | 10 | 1.0 | 700 | 10 | 14 | 85 | 2.1 |
| YHS-15 | N13900609 | 15 | 1.5 | 700 | 70 | 35 | 220 | 6.9 |


## YCC-201
## Hydraulic chain cutter

This hydraulic chain cutter has been designed for cutting high-tensile, grade 10 chains up to a material diameter of 13 mm. The open design allows easy positioning of the chain. The unit can be operated using the standard hand or motor pumps.

Recommended pump:
Electric power pack model PY-04/2/5/2M

### Features

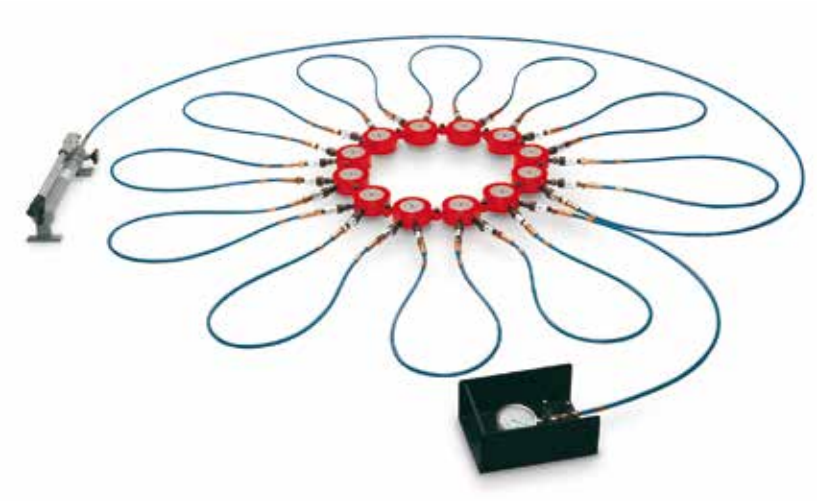
- Cutting performance:
  max. material dimension grade 10 Ø: 13 mm
  max. cutting force: 23 t
  Weight: 37.4 kg
- Solid, stable and rigid body
- Built-in standard hydraulic cylinder, single-acting with spring return
- Both through-hardened cutting blades are identical in construction, can be re-sharpened and are easy to remove
- Protection flap with acrylic glass pane allows safe monitoring of cutting process
- Opening in base plate allows chips and splinters to fall down through the body for removal
- Special chain support device for cutting larger chains

# PPS
# Hydraulic propeller press system

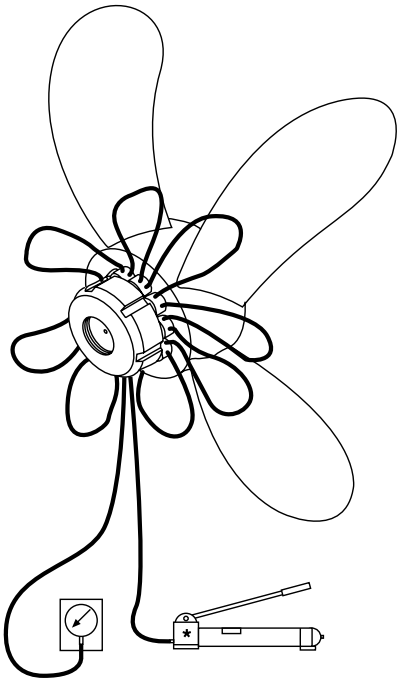
## Operating pressure max. 2000 bar

The hydraulic propeller press system is used to press-fit large propellers onto the drive shaft of ships.
To this end the special flat cylinders can be linked together to build a chain of any length and press force. The cylinders are provided with appropriate link eyes at both sides.

The max. operating pressure of 2000 bar ensures high pressure forces up to 1600 t or more.



A complete hydraulic propeller press system with 12 cylinders with a total capacity of 1200 tons. The system is complete with appropriate connecting hoses with quick-release couplers, pressure gauge and hand pump TWAZ-2,3. All parts are designed for a maximum operating pressure of 2000 bar.



## Special flat hydraulic cylinder

**With link connections at both sides and 2 male quick connect coupler halves**

Capacity max. 100 t.

Stroke 10 mm.

Pressure max. 2000 bar.

Diameter 127 mm.

Closed height 50 mm.

(Couplungs do not belong to the scope of supply and must be ordered seperately)

## Link plates and lifting hooks

They are used to connect the cylinders and to handle the complete chain with a crane. 2 pieces of link plates and lifting hooks as well as the corresponding number of high-pressure hoses (with female quick connect couplers at both ends) belong to a complete set.

## RPYS-1215
## Hydraulic test rig for hoisting equipment

### Capacity max. 12 t

For testing pul-lifts, lever hoists, chain blocks, wire rope pullers as well as other lifting equipment after repair or inspection.

### Testing of hoisting equipment

The lifting unit is placed between upper and lower shackle, the chain is tensioned against the oil cushion of the partly advanced piston of the hydraulic cylinder.
The applied force can be read at the pressure gauge.

### Testing of the hoist brake

For a functional test of the hoist brake the hand pump may be used to apply a counter pressure and thus increase the pulling force after a general test.

### Frequent use

For frequent testing, the hand pump may be replaced by a low-cost air hydraulic (model PAY-6) or electric pump (model PY-04/2/5/2 M).

### Pressure gauge

To read pulling forces more easily, the test rig is equipped with two high-quality pressure gauges.

Quick couplers allow an easy replacement of pressure gauges.

Pressure gauge 1 for small test items: GGY-1005, display: 0 - 160 bar, Ø 100 mm, Kl. 1.0 %

Pressure gauge 2 for big test items: GGY-1003, display: 0 - 400 bar, Ø 100 mm, Kl. 1.0 %

Permanent load lifting magnet TPM 0,3 for a test in the test rig RPYS-1215 complete with the test plate AYP-1215-S

## AYP-1215-S
## Test plate for permanent load lifting magnets

### Test load max. 12 t

For testing of permanent load lifting magnets according to DIN EN 13155.

The plate is placed into the 12 ton test rig RPYS-1215 (or other versions of this test rig) and connected to the frame with a bolt.

The test plate with a standardised surface according to DIN EN 13155 kann be adjusted horizontally to align it steadily.

Dimensions: 800 x 490 x 60 mm

## Features

- Fully welded, low-strain press-frame.
- Upper and lower hook suspension by means of shackles, incl. two 5 tons pull-rings for smaller test units.
- Lateral pump table.
- Infinite adjustment of the pulling force.
- Chart for easy determination of test force.
- Removable lower suspension e.g. for testing of plate clamps.
- Base pre-drilled for mounting.
- High-quality hydraulic components.
- YCS-21/150 hollow cylinder made from chromium-molybdenum steel, heat-treated and hard chromium-plated. Long cylinder stroke of 150 mm with bronze bearings.
- Two-stage quick action hand pump HPS-2/0,7A.
- High-strength threaded bar M27.
- Fine-adjustment pressure valve.

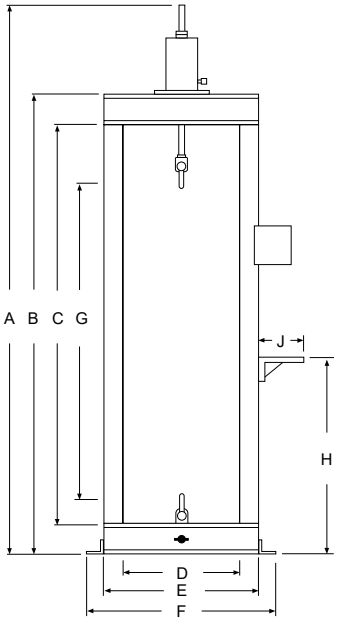
## Technical data RPYS

| Model | Art.-No. |
|---|---|
| RPYS-1215 | N13700895 |

## Dimensions RPYS

| Model | RPYS-1215 |
|---|---|
| A, mm | 2580 - 2730 |
| B, mm | 2160 |
| C, mm | 1840 |
| D, mm | 500 |
| E, mm | 630 |
| F, mm | 760 |
| G[1], mm | 1030 - 1425 |
| H, mm | 750 |
| J, mm | 150 |
| Weight, kg | 225 |

[1] 700 mm with 5 t pull-rings




## INFO

The test rigs are delivered complete and ready to use.


# RPYS-1535
# Hydraulic test rig for steel winches

## Capacity max. 15 t

For the testing of steel winches or similar lifting devices we offer a specific test rig.

## Features

- Max. capacity 15 t.
- With hydraulic cylinder model YS-15/350.
- Stroke: 350 mm.

## Scope of delivery

- Incl. two-stage hand pump model: HPS-2/2 A.
- Fine-adjustment pressure valve 0 - 700 bar.
- Hydraulic hose 2 m, model: HHC-20.
- Pressure gauge: GGY-1004, display: 0 - 700 bar, Ø 100 mm, Kl. 1.0 %.

RPY-10 ... (10 t press)
RPY-23 ... (23 t press)

## RPY and RPES
## Universal workshop presses

### Capacity 10 - 200 t

For all repair and assembly jobs.

According to European standards, all Yale workshop presses can be used without any additional protection devices as the piston speed is below 10 mm/s.
For special applications additional safety equipment (e.g. protection grid or two-hand-safety-control) can be offered on request.

### Applications

- Pressing and removing of bolts, shafts, bearings.
- Straightening of beams, profiles, axles, shafts.
- Forming, bending, crimping.
- General load tests and tests of weld specimens.
- Stamping, cutting, punching.
- Pre-adjustment of tools.

## Equipment of all presses

### Features

- All workshop presses are ready to use, including hydraulic oil, oil level gauge.
- High pressure-hydraulic hoses.
- Glycerine-damped pressure gauges.
- Fixing holes in base profiles, adjusting device for press table and head, swivelling pump console, conversion chart: Pressure-force etc.

## Description of the hydraulic cylinders

### Features

- Cylinders made from chromium-molybdenum steel, heat-treated and with metric mounting threads in the piston.
- Double bronze bearing of the hard chromium-plated piston.
- Piston return through spring or hydraulically.
- Mounting thread in the piston.
- Available piston strokes from 150 up to 500 mm.

## Description of the press-frame

### Features

- Robust, torsion-resistant construction.
- Solid, precision-welded press-frames.
- Open construction, easily accessible from all sides.
- 50 and 100 tons workshop presses with adjustable press table and press head (frames for adjustments are part of the delivery package).
- 200 t press with adjustable table and fix welded press head.
- Four locking bolts ensure a precisely aligned press head and press table and increase the stability of the frame (50 and 100 t).
- 50, 100 and 200 t presses with pivoting pump table with peripheral passage for straigthening of exceptionaly long parts.
- Modular system: Large variety of combinations of hydraulic cylinders and pumps possible.
- Drive either by hand or electric hydraulic pumps.

RPY-50 ... (50 t press)
RPY-100 ... (100 t press)

## INFO

The press head of the 200 t model is fix welded to the press-frame.

Workshop presses are delivered ready to use.

## Description of the hand pumps

### Features

- All hand pumps with two-stage displacement.
- Glycerine-damped pressure gauge, Ø 63 mm, class 1.6 %.
- Hydraulic hose, L = 2.0 m with male coupler half.

## Description of the hydraulic power packs

### Features

- Longlife radial piston pumps, from 50 t with two-stage displacement.
- Pressure pre-set valve on request (standard equipment for the solenoid valves).
- Glycerine-damped pressure gauge, Ø 100 mm, class 1.0 %.
- Control by manual directional valve (with motor start-stop remote control) or solenoid valve with pendant remote control box.


RPES 10 ... (10 t press)
RPES 30 ... (30 t press)

## Technical data RPY and RPES

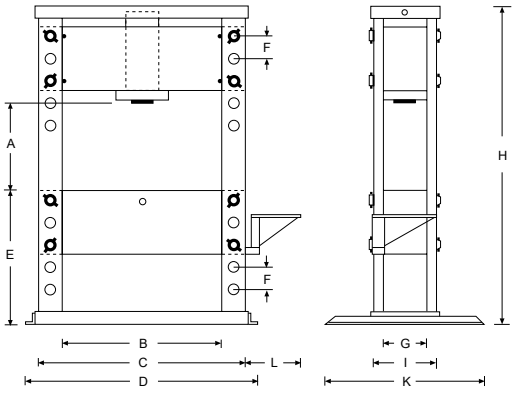
| Model | Art.-No. | Frame design | Capacity t | Cylinder model | Cylinder stroke in mm | Piston return | Type of pump | Valve control | Pump model |
|---|---|---|---|---|---|---|---|---|---|
| RPY-1015 M-2 | N13700896 | bench press | 10 | YS-10/150 | 150 | spring | manual | manual | HPS-2/0,7 A |
| RPY-1025 EM-PYE 07 | N13700021 | bench press | 10 | YS-10/250 | 250 | spring | electric | manual | PYE-07/3/10/3M-RPY |
| RPY-2316 M-2 | N13700898 | bench press | 23 | YS-23/160 | 160 | spring | manual | manual | HPS-2/0,7 A |
| RPY-2325 M-2 | N13700900 | bench press | 23 | YS-23/250 | 250 | spring | manual | manual | HPS-2/2 A |
| RPY-2325 EM-PYE 07 | N13700017 | bench press | 23 | YS-23/250 | 250 | spring | electric | manual | PYE-07/3/10/3M-RPY |
| RPES-1015 M-2 | N13700004 | floor press | 10 | YS-10/150 | 150 | spring | manual | manual | HPS-2/0,7 A |
| RPES-1025 EM-PYE 07 | N13700022 | floor press | 10 | YS-10/250 | 250 | spring | electric | manual | PYE-07/3/10/3M-RPY |
| RPES-2316 M-2 | N13700006 | floor press | 23 | YS-23/160 | 160 | spring | manual | manual | HPS-2/0,7 A |
| RPES-2325 M-2 | N13700900 | floor press | 23 | YS-23/250 | 250 | spring | manual | manual | HPS-2/2 A |
| RPES-2325 EM-PYE 07 | N13700020 | floor press | 23 | YS-23/250 | 250 | spring | electric | manual | PYE-07/3/10/3M-RPY |
| RPY-5015 EM | N13701005 | floor press | 50 | YH-50/150 | 150 | hydraulic | electric | manual | PY-04/2/5/4M |
| RPY-5035 EM | N13700912 | floor press | 50 | YH-50/350 | 350 | hydraulic | electric | manual | PY-04/2/5/4M |
| RPY-5035 EE | N13700913 | floor press | 50 | YH-50/350 | 350 | hydraulic | electric | solenoid | PYS-07/3/10/4 E |
| RPY-5050 EE | N13701006 | floor press | 50 | YH-50/500 | 500 | hydraulic | electric | solenoid | PYS-07/3/10/4 E |
| RPY-10035 EM | N13700914 | floor press | 100 | YH-100/350 | 350 | hydraulic | electric | manual | PY-07/3/10/4 M-RPY |
| RPY-10035 EE | N13700915 | floor press | 100 | YH-100/350 | 350 | hydraulic | electric | solenoid | PY-07/3/10/4 E |
| RPY-10050 EM | N13700916 | floor press | 100 | YH-100/500 | 500 | hydraulic | electric | manual | PY-07/3/10/4 M-RPY |
| RPY-10050 EE | N13701008 | floor press | 100 | YH-100/500 | 500 | hydraulic | electric | solenoid | PY-07/3/10/4 E |
| RPY-20035 EM | N13700917 | floor press | 200 | YH-200/350 | 350 | hydraulic | electric | manual | PY-11/3/20/4 M-RPY |
| RPY-20035 EE | N13700918 | floor press | 200 | YH-200/350 | 350 | hydraulic | electric | solenoid | PY-11/3/20/4 E |
| RPY-20050 EM | N13700919 | floor press | 200 | YH-200/500 | 500 | hydraulic | electric | manual | PY-11/3/20/4 M-RPY |
| RPY-20050 EE | N13701017 | floor press | 200 | YH-200/500 | 500 | hydraulic | electric | solenoid | PY-11/3/20/4 E |

**Code explanation**

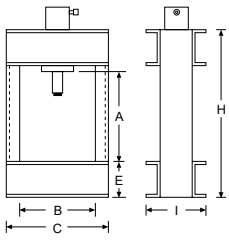
Valve control : M = manual pump, E = solenoid valve with pendant remote control
Pump : M = manual pump, E = electric pump
Piston stroke : 15 = 150 mm, 16 = 160 mm, 25 = 250 mm, 35 = 350 mm, 50 = 500 mm
Capacity max. : 10 = 10 t, 23 = 23 t, 50 = 50 t, 100 = 100 t, 200 = 200 t
Model

## Dimensions RPY and RPES (only frame)

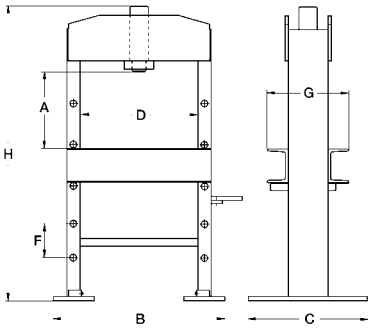
| Model | RPY-10 | RPY-23 | RPES-10 | RPES-23 | RPY-50 | RPY-100 | RPY-200 |
|---|---|---|---|---|---|---|---|
| A min., mm | – | – | 50 | 50 | 280 | 270 | 320 |
| A max., mm | 440 | 440 | 930 | 930 | 1120 | 830 | 1000 |
| B, mm | 380 | 380 | 700 | 700 | 820 | 1000 | 1000 |
| C, mm | 510 | 510 | 650 | 650 | 1020 | 1300 | 1400 |
| D, mm | – | – | 500 | 500 | 1200 | 1480 | 1580 |
| E, mm | 180 | 180 | – | – | 920 | 860 | 1040 |
| F, mm | – | – | 150 | 150 | 140 | 140 | 170 |
| G, mm | – | – | 240 | 240 | 255 | 335 | 450 |
| H, mm | 840 | 840 | 1695 | 1695 | 2000 | 2000 | 2430 |
| I, mm | 300 | 300 | 245 | 245 | 315 | 395 | 550 |
| K, mm | – | – | – | – | 1000 | 1000 | 1000 |
| L, mm | – | – | – | – | 383 | 333 | 400 |
| Weight approx., kg | 77 | 77 | 94 | 94 | 450 | 950 | 2380 |




RPY-50, 100 and 200




RPY-10 up to 23




RPES-10 up to 30

# Selection chart for single-acting systems

## Which hand pump is suitable for which hydraulic cylinder?

The appropriate hand pump model basically depends on the oil volume of the selected hydraulic cylinders.
To assist you in your choice please find proposals for the most common cylinders in our range.

## How to find the right hand pump in the following charts?

The chosen hydraulic cylinder can be found in the first column.

## Several hydraulic cylinders connected to one hand pump:

In those cases where several hydraulic cylinders are connected to one hand pump, the oil volume must be multiplied by the number of connected cylinders. The reservoir of the hand pump must be at least equal to the required total oil volume (plus reserve). If the reserve is very small it may be necessary to top up the reservoir after the air-bleeding procedure, depending on the length of the hydraulic hose. During further operation there is no need to consider the volume of the connected hydraulic hose (regardless of the length) because hoses always remain filled.

## Double-acting systems:

Please note that while advancing a double-acting cylinder, about 1/3 of the cylinder's oil volume flows back to the reservoir (coming from the piston chamber). After the air-bleeding procedure both oil chambers will remain filled.


## INFO

Please contact us for any questions regarding the configuration of complex systems according to your specific requirement.

## Selection chart for single-acting systems

| Model | Oil volume cm³ | Hand pumps single-stage HPS-1/0,7 A 700 cm³ | Hand pumps two-stage HPS-2/0,3 A 300 cm³ | Hand pumps two-stage HPS-2/0,7 A 700 cm³ | Hand pumps two-stage HPS-2/1,3 A 1300 cm³ | Hand pumps two-stage HPS-2/2 A 2000 cm³ | Hand pumps two-stage HPS-2/4 A 4000 cm³ | Hand pumps two-stage HPS-2/6,5 A 6500 cm³ |
|---|---|---|---|---|---|---|---|---|
| YS-5/15 | 11 | +++ | +++ | – | – | – | – | – |
| YS-5/25 | 18 | +++ | +++ | +++ | – | – | – | – |
| YS-5/75 | 53 | +++ | +++ | +++ | – | – | – | – |
| YS-5/127 | 90 | +++ | +++ | +++ | – | – | – | – |
| YS-5/180 | 127 | +++ | +++ | +++ | – | – | – | – |
| YS-10/25 | 37 | +++ | ++ | +++ | – | – | – | – |
| YS-10/50 | 73 | +++ | ++ | +++ | – | – | – | – |
| YS-10/100 | 146 | +++ | ++ | +++ | – | – | – | – |
| YS-10/150 | 218 | +++ | – | +++ | – | – | – | – |
| YS-10/200 | 291 | +++ | – | +++ | – | – | – | – |
| YS-10/250 | 363 | +++ | – | +++ | ++ | – | – | – |
| YS-10/300 | 463 | ++ | – | +++ | ++ | – | – | – |
| YS-15/25 | 53 | +++ | ++ | +++ | – | – | – | – |
| YS-15/50 | 106 | +++ | ++ | +++ | – | – | – | – |
| YS-15/100 | 213 | +++ | – | +++ | ++ | – | – | – |
| YS-15/150 | 319 | +++ | – | +++ | ++ | – | – | – |
| YS-15/200 | 425 | ++ | – | +++ | ++ | ++ | – | – |
| YS-15/250 | 531 | ++ | – | +++ | +++ | ++ | – | – |
| YS-15/300 | 637 | – | – | – | +++ | +++ | – | – |
| YS-15/350 | 744 | – | – | – | +++ | +++ | – | – |
| YS-23/25 | 83 | +++ | – | +++ | – | – | – | – |
| YS-23/50 | 166 | +++ | – | +++ | – | – | – | – |
| YS-23/100 | 332 | +++ | – | +++ | ++ | ++ | – | – |
| YS-23/160 | 531 | ++ | – | +++ | +++ | ++ | – | – |
| YS-23/210 | 697 | – | – | – | +++ | ++ | – | – |
| YS-23/250 | 830 | – | – | – | +++ | ++ | – | – |
| YS-23/300 | 996 | – | – | – | +++ | ++ | – | – |
| YS-23/345 | 1145 | – | – | – | +++ | +++ | – | – |
| YS-30/125 | 552 | ++ | – | +++ | +++ | +++ | – | – |
| YS-30/200 | 884 | – | – | – | +++ | +++ | – | – |
| YS-50/50 | 355 | ++ | – | +++ | +++ | +++ | – | – |
| YS-50/100 | 709 | – | – | – | +++ | +++ | – | – |
| YS-50/160 | 1135 | – | – | – | +++ | +++ | – | – |
| YS-50/320 | 2269 | – | – | – | – | – | +++ | ++ |
| YS-70/150 | 1478 | – | – | – | – | +++ | +++ | ++ |
| YS-70/330 | 3252 | – | – | – | – | – | ++ | +++ |
| YS-100/100 | 1432 | – | – | – | – | +++ | ++ | ++ |
| YS-100/200 | 2863 | – | – | – | – | – | +++ | ++ |
| YLS-10/35 | 51 | +++ | +++ | +++ | – | – | – | – |
| YLS-20/45 | 128 | +++ | ++ | +++ | – | – | – | – |
| YLS-30/60 | 266 | ++ | ++ | +++ | – | – | – | – |
| YLS-50/60 | 426 | ++ | – | +++ | ++ | ++ | – | – |
| YLS-100/55 | 788 | – | – | – | +++ | +++ | – | – |
| YFS-10/11 | 16 | +++ | +++ | +++ | – | – | – | – |
| YFS-20/15 | 31 | +++ | +++ | +++ | – | – | – | – |
| YFS-50/15 | 107 | +++ | ++ | +++ | – | – | – | – |
| YFS-100/15 | 215 | +++ | – | +++ | – | – | – | – |
| YCS-12/40 | 71 | +++ | +++ | +++ | – | – | – | – |
| YCS-12/75 | 132 | +++ | +++ | +++ | – | – | – | – |
| YCS-21/50 | 153 | +++ | ++ | +++ | – | ++ | – | – |
| YCS-21/150 | 458 | +++ | – | +++ | ++ | ++ | – | – |
| YCS-33/60 | 287 | +++ | – | +++ | – | – | – | – |
| YCS-33/150 | 716 | – | – | – | +++ | +++ | – | – |
| YCS-57/70 | 562 | ++ | – | +++ | +++ | +++ | – | – |
| YCS-62/150 | 1330 | – | – | – | – | +++ | +++ | – |
| YCS-93/75 | 990 | – | – | – | +++ | +++ | – | – |

+++ recommended hand pump
++ these combinations can also be used, but the oil volume of the hand pump is quite small
– these combinations should not be chosen, because the oil volumes of the hand pumps are too small to fill the selected cylinder (too large and bulky, respectively)

## Selection chart for double-acting systems

| Model | Oil volume cm³ | Hand pumps two-stage HPH-2/0,7A 700 cm³ | Hand pumps two-stage HPH-2/2A 2000 cm³ | Hand pumps two-stage HPH-2/4A 4000 cm³ | Hand pumps two-stage HPH-2/6,5A 6500 cm³ | Hand pumps two-stage HPH-2/10A 10000 cm³ |
|---|---|---|---|---|---|---|
| YCH-33/150 | 716 | ++ | +++ | – | – | – |
| YCH-33/250 | 1200 | – | +++ | ++ | – | – |
| YCH-62/250 | 2220 | – | +++ | +++ | – | – |
| YCH-93/250 | 3320 | – | – | +++ | ++ | – |
| YCH-100/40 | 578 | +++ | +++ | – | – | – |
| YCH-140/200 | 4080 | – | – | +++ | ++ | – |
| YH-5/30 | 21 | +++ | – | – | – | – |
| YH-5/80 | 57 | +++ | – | – | – | – |
| YH-5/150 | 106 | +++ | – | – | – | – |
| YH-10/30 | 44 | +++ | – | – | – | – |
| YH-10/80 | 116 | +++ | – | – | – | – |
| YH-10/150 | 218 | +++ | – | – | – | – |
| YH-10/250 | 363 | +++ | ++ | – | – | – |
| YH-20/50 | 142 | +++ | ++ | – | – | – |
| YH-20/150 | 424 | +++ | +++ | – | – | – |
| YH-20/250 | 707 | ++ | +++ | – | – | – |
| YH-30/200 | 884 | – | +++ | – | – | – |
| YH-30/350 | 1547 | – | +++ | – | – | – |
| YH-50/150 | 1064 | – | +++ | – | – | – |
| YH-50/350 | 2481 | – | ++ | +++ | – | – |
| YH-50/500 | 3544 | – | – | +++ | ++ | – |
| YH-70/150 | 1478 | – | +++ | – | – | – |
| YH-70/350 | 3449 | – | – | +++ | ++ | – |
| YH-100/50 | 716 | +++ | +++ | – | – | – |
| YH-100/150 | 2148 | – | +++ | +++ | – | – |
| YH-100/350 | 5010 | – | – | ++ | +++ | – |
| YH-100/500 | 7157 | – | – | – | ++ | +++ |
| YH-200/150 | 4253 | – | – | +++ | +++ | – |
| YH-200/350 | 9924 | – | – | – | ++ | +++ |
| YH-200/500 | 14177 | – | – | – | – | +++ |

+++ recommended hand pump
++ these combinations can also be used, but the oil volume of the hand pump is quite small
– these combinations should not be chosen, because the oil volumes of the hand pumps are too small to fill the selected cylinder (too large and bulky, respectively)

# Pump and cylinder speed chart

## Hand pumps

For hand pumps the figures given correspond to the number of pump strokes to achieve a piston travel of 10 mm.

## Power pumps

For power pumps the piston travel speed is indicated in mm/s.

## Double-acting hydraulic cylinders

Please note that double-acting cylinders (YCH, YH and YEHB) always retract faster than they advance, due to the different oil chamber volumes.

## Reservoir volumes

The reservoir volumes of hand pumps shall at least correspond to the oil volume which is necessary to advance all connected hydraulic cylinders (plus reserve).
Motor pump reservoirs should have at least twice the total required oil quantity (better 3 or 4 times) depending on the operation conditions. For continuous operation choose extra large reservoirs to avoid excessive heating-up of the hydraulic oil.

## Hand pumps

| Cylinder size t | Number of pump strokes for 10 mm strokes | |
|---|---|---|
| | HPS-2/0,7 A up to HPS-2/10 A ND | HPS-1/0,7 A up to HPS-2/10 A HD |
| 5 | 1 | 4 |
| 10 | 1 | 7 |
| 15 | 2 | 11 |
| 20 | 2 | 14 |
| 21 | 2 | 15 |
| 23 | 3 | 17 |
| 30 | 3 | 22 |
| 33 | 4 | 24 |
| 50 | 5 | 35 |
| 57 | 6 | 40 |
| 62 | 7 | 44 |
| 70 | 8 | 49 |
| 85 | 9 | 61 |
| 93 | 10 | 66 |
| 100 | 11 | 72 |
| 140 | 15 | 100 |
| 200 | 22 | 142 |
| 220 | 24 | 157 |
| 340 | 32 | 205 |
| 430 | 47 | 308 |
| 560 | 62 | 402 |
| 670 | 74 | 481 |
| 880 | 97 | 628 |

ND = Low-pressure stage (unloaded stroke)
HD = High-pressure stage (loaded stroke

## Power pumps

| Cylinder size | Piston travel speed in mm/s | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PY-04 | PY-04 | PY-07 | PY-07 | PY-11 | PY-11 | PY-22 | PY-22 | PYE-40 | PYE-55 | PYE-75 | PYE-110 | PYE-180 |
| t | ND | HD | ND | HD | ND | HD | ND | HD | HD | HD | HD | HD | HD |
| 5 | 99.9 | 5.4 | 155.9 | 14.2 | – | – | – | – | 63.8 | – | – | – | – |
| 10 | 48.7 | 2.6 | 75.9 | 6.9 | 103.5 | 11.5 | – | – | 31.1 | 46 | 69 | – | – |
| 15 | 33.3 | 1.8 | 51.9 | 4.7 | 70.8 | 7.9 | – | – | 21.2 | 31.5 | 47.2 | 62.9 | – |
| 20 | 25.0 | 1.4 | 39.0 | 3.5 | 53.2 | 5.9 | 106.9 | 12.4 | 15.9 | 23.6 | 35.4 | 47.3 | 75.0 |
| 21 | 23.2 | 1.3 | 36.1 | 3.3 | 49.3 | 5.5 | 99.1 | 11.5 | 14.8 | 21.9 | 32.8 | 43.8 | 69.5 |
| 23 | 21.3 | 1.2 | 33.2 | 3.0 | 45.3 | 5.0 | 91.1 | 10.6 | 13.6 | 20.1 | 30.2 | 40.3 | 63.9 |
| 30 | 16.0 | 0.9 | 24.9 | 2.3 | 34.0 | 3.8 | 68.4 | 7.9 | 10.2 | 15.1 | 22.7 | 30.2 | 48.0 |
| 33 | 14.8 | 0.8 | 23.1 | 2.1 | 31.5 | 3.5 | 63.4 | 7.4 | 9.5 | 14 | 21 | 28.0 | 44.5 |
| 50 | 10.0 | 0.5 | 15.6 | 1.4 | 21.2 | 2.4 | 42.6 | 4.9 | 6.4 | 9.4 | 14.1 | 18.8 | 29.9 |
| 57 | 8.8 | 0.5 | 13.7 | 1.2 | 18.7 | 2.1 | 37.7 | 4.4 | 5.6 | 8.3 | 12.5 | 16.7 | 26.4 |
| 62 | 8.0 | 0.4 | 12.4 | 1.1 | 17.0 | 1.9 | 34.1 | 4.0 | 5.1 | 7.5 | 11.3 | 15.1 | 24.0 |
| 70 | 7.2 | 0.4 | 11.2 | 1.0 | 15.3 | 1.7 | 30.7 | 3.6 | 4.6 | 6.8 | 10.2 | 13.6 | 21.5 |
| 85 | 5.8 | 0.3 | 9.0 | 0.8 | 12.3 | 1.4 | 24.7 | 2.9 | 3.7 | 5.4 | 8.2 | 10.9 | 17.3 |
| 93 | 5.4 | 0.3 | 8.4 | 0.8 | 11.4 | 1.3 | 22.9 | 2.7 | 3.4 | 5.1 | 7.6 | 10.1 | 16.1 |
| 100 | 4.9 | 0.3 | 7.7 | 0.7 | 10.5 | 1.2 | 21.1 | 2.5 | 3.2 | 4.7 | 7.0 | 9.3 | 14.8 |
| 140 | 3.5 | 0.2 | 5.5 | 0.5 | 7.5 | 0.8 | 15.0 | 1.7 | 2.2 | 3.3 | 5.0 | 6.7 | 10.6 |
| 200 | 2.5 | 0.1 | 3.9 | 0.4 | 5.3 | 0.6 | 10.7 | 1.2 | 1.6 | 2.4 | 3.5 | 4.7 | 7.5 |
| 220 | 2.2 | 0.1 | 3.5 | 0.3 | 4.8 | 0.5 | 9.6 | 1.1 | 1.4 | 2.1 | 3.2 | 4.3 | 6.8 |
| 340 | – | – | 2.7 | 0.2 | 3.7 | 0.4 | 7.4 | 0.9 | 1.1 | 1.6 | 2.4 | 3.3 | 5.2 |
| 430 | – | – | 1.8 | 0.2 | 2.4 | 0.3 | 4.9 | 0.6 | 0.7 | 1.1 | 1.6 | 2.2 | 3.4 |
| 560 | – | – | 1.4 | 0.1 | 1.9 | 0.2 | 3.8 | 0.4 | 0.6 | 0.8 | 1.2 | 1.7 | 2.6 |
| 670 | – | – | 1.1 | 0.1 | 1.6 | 0.2 | 3.1 | 0.4 | 0.5 | 0.7 | 1.0 | 1.4 | 2.2 |
| 880 | – | – | 0.9 | 0.1 | 1.2 | 0.1 | 2.4 | 0.3 | 0.4 | 0.5 | 0.8 | 1.1 | 1.7 |

ND = Low-pressure stage (unloaded stroke)
HD = High-pressure stage (loaded stroke)
– = combination not recommended or not possible