

**Pullers &
Industrial
Hydraulics**

Pullers & Industrial Hydraulics



WILLIAMS PULLERS

- Spring tension design holds jaws against object being pulled, allowing the adjusting or locking nut to be tightened.
- Curved, reversible jaws are designed for a secure grip, flush to the object being pulled and can be reversed from an inside pull to an outside pull, and from an outside pull to an inside pull.
- Parabolic curved head on the pressure screw for occasional hammer blows to "persuade" frozen gears and pulleys and to reduce mushrooming.
- Hex head on the pressure screw can be turned with a standard hex wrench or socket – no special tools needed.
- Pressure screws have rolled threads – fine NF on manual, coarse NC on hydraulic – instead of cut threads, making them stronger and more durable.
- Replaceable centering point directs power to help prevent cocking of the puller and allows easy, almost friction-free, turning of the pressure screw.
- Yoke and jaws are forged and precisely heat-treated for maximum strength and durability and are compatible with both slide hammer or pressure screw.



INDUSTRIAL HYDRAULICS

- Heavy duty, heat treated, grooved saddle provides better surface traction during use.
- Steel stop ring for ram over travel protection.
- Cylinders are burnish rolled for a smooth precision mirror finish, which reduces scoring and prolongs seal life.
- Rod wiper seals out dirt and contaminants.
- Industrial hard chrome plated ram prevents scratching and corrosion.
- One piece steel ram stopper for extra strength and enhanced over travel protection.
- Rectangular return spring design results in even distribution of the load, which helps to eliminate spring breakage and creates quicker retraction.



PULLERS & INDUSTRIAL HYDRAULICS

FEATURES



Features and Benefits

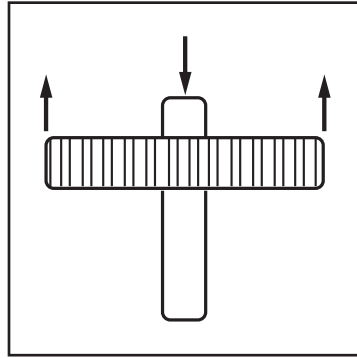
- **Spring Tensioned and Self-locking Jaws** – Spring tension design holds jaws against object being pulled, then adjusting or locking nut is tightened, thus clamping the puller securely.
- **Interchangeability** – Different jaws can be used with yoke, thus allowing tremendous variety within the Williams' line.
- **Jaws** – Jaws are forged for maximum strength. Forging is a proven process to control dimensions and provide the basis for precise heat-treating.
- **Curved Jaw Design** – This allows for a secure grip, flush to the object being pulled.
- **Reversible Jaws** – Jaws can be reversed in a simple operation (no nuts and bolts) by pulling up on the locking plate.
- **Two-jaw Positions** – This feature helps avoid stresses created from wedging action to allow straighter pull. One set of jaws and one yoke actually provides capabilities of three pullers.
- **Pins are Forged as Part of the Jaw** – Allows easy interchange of jaws; no nuts or bolts that can be misplaced.
- **Part Numbers on Jaws** – Numbers are stamped on jaws for easy identification and reorder.
- **Parabolic curved anvil head** – A feature on the head of the pressure screw for occasional hammer blows to "persuade" frozen gears and pulleys. Designed to reduce mushrooming. Easily redressed with a hand file.
- **Hex Head on Screw** – This means that the pressure screw can be turned with a standard hex wrench or socket – no special tools needed.
- **Roller threads** – Pressure screws have rolled threads (fine [nf] on manual, course [nc] on hydraulic), instead of cut threads, making them stronger and more durable.
- **Replaceable Centering Point** – The centering point directs power to help prevent cocking of the puller. Also allows easy, almost friction-free, turning of the pressure screw. Generally, only the centering point, and not the whole screw, need replacing, saving your customer big dollars.
- **Yoke** – Yoke is forged and precisely heat-treated for maximum strength and maximum durability.
- **Slide Hammer or Pressure Screws** – Yoke is compatible with both slide hammer or pressure screw. It is also recommended that a lubrication compound (NEVER-SEEZ®) be used on the pressure screws.
- **Slide Hammer** – Many of our pullers can be assembled with a longer pressure screw to use slide hammer power. This fact is especially useful in removing blind hole bearings.



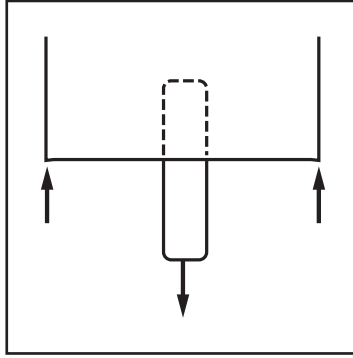
The ABC's of Selecting the Right Puller

A. What Type of Puller Do I Want to Use?

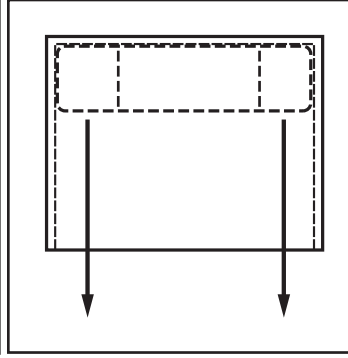
What would be the Combination that Works the Best?



Removing a Gear, Bearing, Pulley, or Other Component from a Shaft



Pulling a Shaft Out of a Housing or Bore



Removing a Bearing or Bushing from a Blind Hole

PULLERS & INDUSTRIAL HYDRAULICS

FEATURES

Tools to Use

- **Jaw-Type Puller** - 2- or 3-jaw style, with 3-jaw being the best choice. Manual or hydraulic with outside jaw positions.
- **Push-Pull Puller** - Use male or female adaptors to thread into tapped holes on components.
- **Slide Hammer Puller** - Use on light-duty applications. For use with attachments.
- **Bar-Type Puller with Bearing Separator** Bar type with side rods threaded into bearing separator provides "knife edge" to get behind component or when there is not a good gripping edge.

Tools to Use

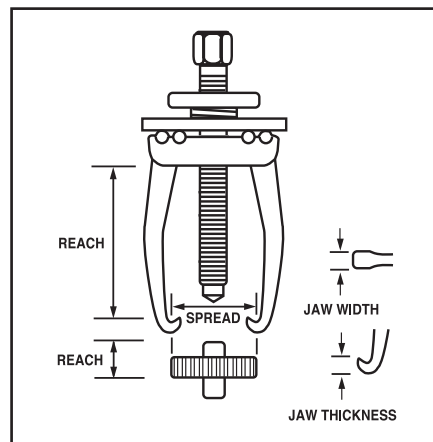
- **Push-Pull Puller** - Use male or female adaptors.
- **Bar-Type Puller with Bearing Separator** - Use when housing lacks sufficient surface for puller side rods to bear against.
- **Slide Hammer Puller** - Use on light-duty applications. For use with attachments.
- **Slide Hammer Puller** - Use with male or female adaptors. See page 333 for a full listing of compatible adaptors.

Tools to Use

- **Jaw-Type Puller** - For inside jaw positions (inside pulls), a manual or hydraulic jaw-type puller can be used with pressure screw or slide hammer variations.
- **Expanded Collet Puller** - The inside diameter should range between 1/4" and 7". Pulling can be done with bridge, bar-type yokes, or slide hammers.
- **Bearing Adaptors with Slide Hammer Puller** Slide Hammer should be used in this application.
- **Bar-Type Puller with Bearing Separator** - Bar type with side rods threaded into bearing separator provides "knife edge" to get behind components or when there is not a good gripping edge.

B. Determine the "Reach" and "Spread" Needed - The puller's reach must equal or exceed the same distance on the part. The puller's spread is the width of the part.

C. Estimate the Puller Tonnage - Generally, if you already have the correct "reach and spread," you will usually have the proper tonnage. If in doubt, use the next larger size.



Warning

- Pullers and parts under stress can break. Wear safety goggles while using pullers. Screen the puller from yourself and bystanders. Use the largest size puller possible to do the job. Use a three jaw puller where possible. Inspect puller; do not use puller with worn or damaged parts. Make sure puller is fully engaged and squarely seated. Broken parts can cause injury.
- Heating puller jaws can change their strength. Do not heat jaws of puller. Weakened jaws can break and cause injury.
- Hammering on puller jaws can cause damage. Hammer only on curved head of pressure screw. Broken parts can cause injury.
- Hand can get caught between slide hammer and hammer stop. Keep hand away from front and rear of slide hammer. Hand injury can be caused by slide hammer.

- Damaged or loose hydraulic lines can leak or burst. Inspect hoses; do not use hoses with cuts, splits, or cracks. Tighten hydraulic connections. Hydraulic leak can cause injury.
- Be sure that pressure screw threads are cleaned and well lubricated when using impact tools on pullers.
- Always use protective tip or removable point to prevent pressure screw from mushrooming or splitting.
- Always maintain a proper fluid level in hydraulic pump.
- Always use a pressure gauge with hydraulic pullers.
- Never keep pressure on a hydraulic ram. When job is finished, immediately release ram pressure.
- Use blind hole bearing pullers rather than torches, chisels, screwdrivers, hammers, prybars, etc. A blind hole puller provides 360° of steady, even pulling power.



Master Combination Gear Puller Set

2 and 3 Jaw, 10 & 12-1/2 Ton Capacity, Pressure Screw and Slide Hammer

Product Code	Maximum Capacity (Tons)	Maximum Reach (Inches)
87079	12 1/2	8 3/4

Contents Include:

Description	Capacity (Tons)	Maximum Reach (Inches)	Pressure Screw Size (Inches)
Plastic Case	-	-	-
Handle Bar	-	-	-
Slide Hammer Screw	10	-	3/4 - 16 x 23 3/8
3 1/2 Lb. Slide Hammer	-	-	-
Long Pressure Screw	10	8 3/4	3/4 - 16 x 12 1/8
Short Pressure Screw	10	5 1/2	3/4 - 16 x 9 3/16
Special Grip Jaw	12 1/2	5 1/2	-
Jaw	12 1/2	8 3/4	-
2 Jaw Yoke	10	-	-
2 Jaw Yoke Plate	-	-	-
Spring	-	-	-
Adjusting Nut	-	-	-
3 Jaw Yoke	12 1/2	-	-
3 Jaw Yoke Plate	-	-	-
Removable Point	-	-	-
Flat Removable Point	-	-	-
Jaw	12 1/2	5 1/2	-

Features

- Ideal for heavy-duty use.
- Plastic case keeps all components organized and helps prevent loss.
- Makes a variety of 2 and 3-jaw pressure screw and slide hammer pullers.
- Pulls gears up to 10" diameter.



87079



Heavy Duty Gear Puller Set

2 and 3 Jaw, 10 & 12-1/2 Ton Capacity, Pressure Screw

Product Code	Maximum Capacity (Tons)	Maximum Reach (Inches)
87021	12 1/2	8 3/4

Contents Include:

Description	Capacity (Tons)	Maximum Reach (Inches)	Pressure Screw Size (Inches)
2 Jaw Puller With Long Reach	10	8 3/4	3/4 - 16 x 12 - 1/8
Jaws	-	-	-
3 Jaw, Long Reach	12 1/2	8 3/4	-
3 Jaws, Short Reach	12 1/2	5 1/2	-
Yoke - 3 Jaw	-	-	-
Locking Plate - 3 Jaw	-	-	-
Metal Box	-	-	-

Features

- Components assemble to form 8 different pullers.
- Pulls gears up to 8" diameter.



87021





PULLERS & INDUSTRIAL HYDRAULICS

FEATURES SETS

Medium Duty Combination Gear Puller Set

2 and 3 Jaw, 6 & 7-1/2 Ton Capacity, Pressure Screw and Slide Hammer

Product Code	Maximum Capacity (Tons)	Maximum Reach (Inches)
87020	7 1/2	6

Contents Include:

Description	Capacity (Tons)	Maximum Reach (Inches)	Pressure Screw Size (Inches)
3 Jaw Puller With Long Reach Jaws	6	6	5/8 - 18 x 6 7/8
3 Jaws, Short Reach	7 1/2	3	-
Yoke - 2 Jaw	6	-	-
2 1/8 Lb. Slide Hammer	-	-	-
Slide Hammer Screw	-	-	5/8 - 18 x 18 1/16
Pulling Plate	-	-	-
Metal Tool Box 19" X 5 7/8" X 2 1/2"	-	-	-

Features

- Components assemble to form 6 different pullers.
- Pulls gears up to 8" diameter.



87020



Light Duty Combination Gear Puller Set

3-Jaw, 2-1/2 Ton Capacity, Pressure Screw and Slide Hammer

Product Code	Maximum Capacity (Tons)	Maximum Reach (Inches)
87019	2 1/2	8 3/4

Contents Include:

Description	Capacity (Tons)	Maximum Reach (Inches)	Pressure Screw Size (Inches)
3 Jaw Puller With Short Reach Jaws	2 1/2	2 1/2	3/8 - 16 x 6 1/16
3 Jaws, Long Reach	2 1/2	3 1/2	-
1 1/16 Lb. Slide Hammer	-	-	-
Slide Hammer Screw	-	-	3/8 - 16 x 12 5/8
Metal Tool Box 12" X 4 1/2" X 2"	-	-	-

Features

- Components assemble to form 8 different pullers.
- Pulls gears up to 3" diameter.



87019



Slide Hammer Sets

Product Code	Slide Hammer Weight (Lbs.)	Slide Screw Size (Inches)
87016	1 1/16	3/8 - 16 x 12 5/8
87017	2 1/8	5/8 - 18 x 18 1/16
87018	3 1/2	3/4 - 16 x 23 3/8

Features

- Converts pressure-screw type pullers to slide hammer use.
- Pressure screw is removed and slide screw assembly is inserted.
- Sliding hammer "shocking" action loosens and helps remove gears and bearings.



87018

2 Ton Capacity Grab'n Go Puller Set

Short and Long 2-Jaw Puller Set

Product Code	Description
87081	2 Ton Capacity 2 Jaw Grab'n Go Puller Set

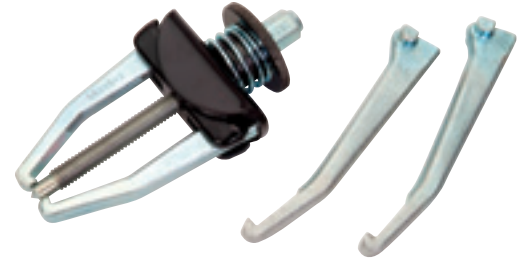
Components:

Jaw Length	Number of Jaws	Capacity (Tons)	Maximum Reach (Inches)	Inside Spread (Inches)	Outside Spread (Inches)
Short Jaws	2	2	2 1/2	7/8 - 3 1/4	3
Long Jaws	2	2	3 1/2	7/8 - 3 3/4	4

Pressure screw size: 3/8" -16 x 6 1/16"

Features

- Clear plastic storage tube keeps components together.
- Totally portable - Ideal for use in the shop or at the job site.
- Components assemble to form 4 different pullers:
 - Short 2-jaw external puller
 - Short 2-jaw internal puller
 - Long 2-jaw external puller
 - Long 2-jaw internal puller



87081

2-1/2 Ton Capacity Grab'n Go Puller Set

Short and Long 3-Jaw Puller Set

Product Code	Description
87082	2 1/2 Ton Capacity 3 Jaw Grab'n Go Puller Set

Components:

Jaw Length	Number of Jaws	Capacity (Tons)	Maximum Reach (Inches)	Inside Spread (Inches)	Outside Spread (Inches)
Short Jaws	3	2 1/2	2 1/2	7/8 - 3 1/4	3
Long Jaws	3	2 1/2	3 1/2	7/8 - 3 3/4	4

Pressure screw size: 3/8" -16 x 6 1/16"

Features

- Clear plastic storage tube keeps components together.
- Totally portable - Ideal for use in the shop or at the job site.
- Components assemble to form 4 different pullers:
 - Short 3-jaw external puller
 - Short 3-jaw internal puller
 - Long 3-jaw external puller
 - Long 3-jaw internal puller



87082

4-1/2 & 6 Ton Capacity Grab'n Go Puller Set

Short and Long 2-Jaw Puller Set

Product Code	Description
87083	4 1/2 & 6 Ton Capacity 2 Jaw Grab'n Go Puller Set

Components:

Jaw Length	Number of Jaws	Capacity (Tons)	Maximum Reach (Inches)	Inside Spread (Inches)	Outside Spread (Inches)
Short Jaws	2	6	3	1 1/2 - 3 1/2	4 1/2
Long Jaws	2	4 1/2	6	3/4 - 8	NA

Pressure screw size: 5/8" -18 x 6 7/8"

Features

- Clear plastic storage tube keeps components together.
- Totally portable - Ideal for use in the shop or at the job site.
- Components assemble to form 3 different pullers:
 - Short 2-jaw external puller.
 - Short 2-jaw internal puller.
 - Long 2-jaw internal puller (NOTE: long jaws are designed for internal pulling only).



87083





6 & 7-1/2 Ton Capacity Grab'n Go Puller Set

Short and Long 3-Jaw Puller Set

Product Code	Description
87084	6 & 7 1/2 Ton Capacity 3 Jaw Grab'n Go Puller Set

Components:

Jaw Length	Number of Jaws	Capacity (Tons)	Maximum Reach (Inches)	Inside Spread (Inches)	Outside Spread (Inches)
Short Jaws	3	7 1/2	3	11/2 - 3 1/2	4 1/2
Long Jaws	3	6	6	3/4 - 8	NA

Pressure screw size: 5/8" -18 x 6 7/8"

Features

- Clear plastic storage tube keeps components together.
- Totally portable - Ideal for use in the shop or at the job site.
- Components assemble to form 3 different pullers:
 - Short 3-jaw external puller
 - Short 3-jaw internal puller
 - Long 3-jaw internal puller (NOTE: long jaws are designed for internal pulling only)



87084



Blind Hole Bearing Puller Sets

Product Code	Description	Range Size (Inches)
87033	Basic Blind Hole Puller Set	7/16 - 1 1/8

Set Includes:

Expander Rod	7/8" Collet
1/2" Collet	1" Collet
5/8" Collet	2 1/8" Pound Slide Hammer & Screw
3/4" Collet	Crossbar

Product Code	Description	Range Size (Inches)
87034	Blind Hole Expansion Set	1/4 - 7/16

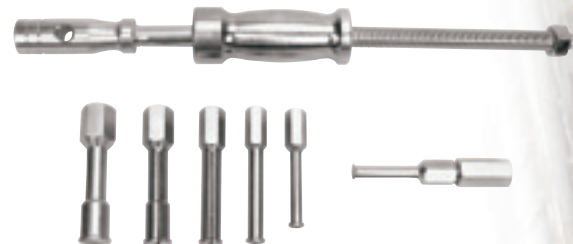
Set Includes:

Expander Rod	3/8" Collet
1/4" Collet	7/16" Collet
5/16" Collet	



Features

- Blind hole bearing pullers can access blind hole bearings, bushings, and sleeves that regular pullers cannot grip.
- Slide hammer is used for pulling action.



87033

Two Jaw Pressure-Screw Pullers

2 to 20 Ton Capacity

Product Code	Capacity (Tons)	Maximum Reach (Inches)	Inside Spread (Inches)	Outside Spread (Inches)	Pressure Screw Size (Inches)	Jaw Thickness (Inches)	Jaw Width (Inches)
87001	2	2 1/2	3 1/4	3	3/8 x 5 1/16	3/16	3/8
87002	2	3 1/2	3 3/4	4	3/8 x 6 1/16	3/16	3/8
87005	6	3	3 1/2	4 1/2	5/8 x 6 7/8	1/4	3/4
87008	10	5 1/2	7 1/2	8 1/2	3/4 x 9 13/16	1/4	15/16
87009	10	8 3/4	8	10	3/4 x 12 1/8	1/4	15/16
87012	10	15	11 1/2	13 3/4	3/4 x 18 15/16	3/8	1
87014	20	9 1/2	10	12	1 x 15	7/16	1 1/4
87015	20	14 3/8	13	16	1 x 19	9/16	1 1/4

Features

- Convertible from external to internal pull - each item makes 2 pullers.
- Self-locking jaws hold puller in place for one-hand operation.
- Interchangeable parts allow tremendous variety of applications.
- Jaws are forged for maximum strength and durability.
- All pullers are easily assembled without the use of other tools.
- Curved anvil heads on the pressure screw allow use of hammer to "shock" frozen gears and pulleys.
- Pullers are compatible with slide hammer sets 87016, 87017, and 87018, simply match the correct pressure screw size.



2-jaw

Three Jaw Pressure-Screw Pullers

2-1/2 to 12-1/2 Ton Capacity

Product Code	Capacity (Tons)	Maximum Reach (Inches)	Inside Spread (Inches)	Outside Spread (Inches)	Pressure Screw Size (Inches)	Jaw Thickness (Inches)	Jaw Width (Inches)
87003	2 1/2	2 1/2	3 1/4	3	3/8 x 5 1/16	3/16	3/8
87004	2 1/2	3 1/2	3 3/4	4	3/8 x 6 1/16	3/16	3/8
87006	6	6	8	NR	5/8 x 6 7/8	7/32	5/16
87007	7 1/2	3	3 1/2	4 1/2	5/8 x 6 7/8	1/4	3/4
87010	12 1/2	5 1/2	7 1/2	8 1/2	3/4 x 9 13/16	1/4	15/16
87011	12 1/2	8 3/4	8	10	3/4 x 12 1/8	1/4	15/16
87013	12 1/2	15	11 1/2	13 3/4	3/4 x 18 15/16	3/8	1

Features

- NR = Not Recommended, Designed as an inside pull only.
- Convertible from external to internal pull - all except 87006 make 2 pullers.
- Self-locking jaws hold puller in place for one-hand operation.
- Interchangeable parts allow tremendous variety of applications.
- Jaws are forged for maximum strength and durability.
- All pullers are easily assembled without the use of other tools.
- Curved anvil heads on the pressure screw allow use of hammer to "shock" frozen gears and pulleys.
- Pullers are compatible with slide hammer sets 87016, 87017, and 87018, simply match the correct pressure screw size.



3-jaw





Combination 2 / 3 Jaw Pressure-Screw Pullers

20 Ton Capacity

Product Code	Capacity (Tons)	Maximum Reach (Inches)	Inside Spread (Inches)	Outside Spread (Inches)	Pressure Screw Size (Inches)	Jaw Thickness (Inches)	Jaw Width (Inches)
87045	20	9 1/2	10	12	1 x 15	7/16	1 1/4

Features

- Similar in appearance to 3-jaw puller, with unique design that enables use as a 2-jaw or 3-jaw puller.
- Includes 3 jaws.



87045



Chain Puller

10 Ton Capacity

Product Code	Capacity (Tons)	Maximum Reach (Inches)	Pressure Screw Size (Inches)	Jaw Thickness (Inches)	Jaw Width (Inches)	Pressure Screw Extension (Inches)
87024	10	54	3/4 x 12 1/8	1/2	1 1/4	6

Features

- Provides extra long reach for large diameter gears and pulleys.
- 4-foot alloy chains with articulated jaws and grab hooks for maximum gripping power.



87024

2 Jaw Hydraulic Pullers

Product Code	Description	Capacity (Tons)	Number of Jaws	Maximum Reach (Inches)	Inside Spread (Inches)	Outside Spread (Inches)	Pressure Screw Size (Inches)	Jaw Thickness (Inches)	Jaw Width (Inches)
87046	6 Ton, 2 Jaw	6	2	3	3 1/2	4 1/2	1 1/8 x 20 1/2	1/4	3/4
87047	10 Ton, 2 Jaw	10	2	8 3/4	8	10 1/2	3/4 x 16 1/4	1/4	15/16
87048	10 Ton, 2 Jaw	10	2	15	11 1/2	13 3/8	3/4 x 23 3/8	3/8	1



87047

Combination 2/3 Jaw Hydraulic Pullers

Product Code	Description	Capacity (Tons)	Number of Jaws	Maximum Reach (Inches)	Inside Spread (Inches)	Outside Spread (Inches)	Pressure Screw Size (Inches)	Jaw Thickness (Inches)	Jaw Width (Inches)
87049	20 Ton, 2/3 Jaw	20	2/3	9 1/2	NR	13	1 1/8 x 20 1/2	7/16	1 1/4
87050	20 Ton, 2/3 Jaw	20	2/3	14	NR	15	1 1/8 x 20 1/2	9/16	1 1/4
87052	20 Ton, 2/3 Jaw	20	2/3	19	NR	20	1 1/8 x 20 1/2	1 1/8	1 1/2
87054	50 Ton, 2 Jaw	50	2/3	28	NR	44	1 5/8 x 30	1 7/16	2

NR = Not Recommended, Designed as an outside puller only.



Features

- Ideal for the most rugged industrial applications.
- Hydraulic power increases versatility of the puller.
- Reduces effort and increases pulling safety.



87054



87050

Tight-Grip Stud Remover / Installer Set

Remove and Install Coarse and Fine Thread Studs from 1/4" through 5/8" Diameter

Product Code	Description
87032	15 Piece Stud Remover / Installer Set

Contents Include:

Product Code	Description	Stud Size (Inches)
87035	Stud Remover / Installer Housing	
87055	Collet 1/4-20	1/4 - 20
87056	Collet 1/4-28	1/4 - 28
87057	Collet 5/16-18	5/16 - 18
87058	Collet 5/16-24	5/16 - 24
87059	Collet 3/8-16	3/8 - 16
87060	Collet 3/8-24	3/8 - 24
87061	Collet 7/16-14	7/16 - 14
87062	Collet 7/16-20	7/16 - 20
87063	Collet 1/2-13	1/2 - 13
87064	Collet 1/2-20	1/2 - 20
87065	Collet 9/16-12	9/16 - 12
87066	Collet 9/16-18	9/16 - 18
87067	Collet 5/8-11	5/8 - 11
87068	Collet 5/8-18	5/8 - 18

Features

- Remove studs without damaging the threads.
- Collet is placed in housing and threaded over stud. Draw bolt is then used to clamp tool onto stud for secure removal or installation.
- Studs may be reused.
- Ideal for working in confined areas.
- Works even if only a few threads are exposed.



87032

Tight-Grip Pipe Nipple Remover & Installer Kits

Remove and Install Pipe Nipples Without Thread Damage

Product Code	Description
87025	Pipe Nipple Remover / Installer Kit for 1/8", 1/4", and 3/8" NPT Pipe Nipples

87025 Includes:

87035	Stud Remover / Installer Housing
87036	Collet, 1/8" NPT
87037	Collet, 1/4" NPT
87038	Collet, 3/8" NPT

Product Code	Description
87026	Pipe Nipple Remover / Installer Kit for 1/2" and 3/4" NPT Pipe Nipples

87026 Includes:

87039	Stud Remover / Installer Housing
87040	Collet, 1/2" NPT
87041	Collet, 3/4" NPT

Product Code	Description
87027	Pipe Nipple Remover / Installer Kit for 1" and 1 1/4" NPT Pipe Nipples

87027 Includes:

87042	Stud Remover / Installer Housing
87043	Collet, 1" NPT
87044	Collet, 1 1/4" NPT

Features

- Remove pipe nipples and other lengths of pipe without damaging pipe threads.
- Collet is placed in housing and threaded over pipe. Draw bolt is then used to clamp tool onto nipple for secure removal or installation.
- Nipples and other lengths of pipe may be reused.
- Essential when working with decorative brass, bronze, and stainless piping.
- Ideal for working in confined areas.



87025



87026



87027

**PULLERS & INDUSTRIAL
HYDRAULICS**

**PULLERS STUD
& NIPPLE
REMOVER &
INSTALLER KITS**



Individual Tight-Grip Stud Remover / Installers

Product Code	Description (Stud Size)	Size (Inches)	Uses Housing Number (Below)
87055	Collet 1/4-20	1/4 - 20	87035
87056	Collet 1/4-28	1/4 - 28	87035
87057	Collet 5/16-18	5/16 - 18	87035
87058	Collet 5/16-24	5/16 - 24	87035
87059	Collet 3/8-16	3/8 - 16	87035
87060	Collet 3/8-24	3/8 - 24	87035
87061	Collet 7/16-14	7/16 - 14	87035
87062	Collet 7/16-20	7/16 - 20	87035
87063	Collet 1/2-13	1/2 - 13	87035
87064	Collet 1/2-20	1/2 - 20	87035
87065	Collet 9/16-12	9/16 - 12	87035
87066	Collet 9/16-18	9/16 - 18	87035
87067	Collet 5/8-11	5/8 - 11	87035
87068	Collet 5/8-18	5/8 - 18	87035
87069	Collet 3/4-10	3/4 - 10	87039
87070	Collet 7/8-9	7/8 - 9	87039
87071	Collet 1-8	1 - 8	87039



87035



Individual Tight-Grip Pipe Nipple Remover / Installers

Product Code	Description (Stud Size)	Size (Inches)	Uses Housing Number (Below)
87036	Collet 1/8 NPT	1/8 NPT	87035
87037	Collet 1/4 NPT	1/4 NPT	87035
87038	Collet 3/8 NPT	3/8 NPT	87035
87040	Collet 1/2 NPT	1/2 NPT	87039
87041	Collet 3/4 NPT	3/4 NPT	87039
87043	Collet 1 NPT	1 NPT	87042
87044	Collet 1 1/4 NPT	1 1/4 NPT	87042



87036



Housings

Product Code	Description
87035	Use with collets above for stud sizes 1/4" through 5/8" and pipe nipple sizes 1/8" through 3/8" NPT
87039	Use with collets above for stud sizes 3/4" through 1" and pipe nipple sizes 1/2" and 3/4" NPT
87042	Use with collets above for pipe nipple sizes 1" and 1 1/4" NPT

Features

- The most ingenious stud and pipe nipple pullers available. Unique two-piece system can be used to remove stubborn studs and nipples, as well as install new ones without damaging the threads. Tapered collets thread onto stud, even if only a few threads are exposed. Tightening the housing bolt draws the collet into the housing and clamps the the collet onto the stud. Doesn't damage threads. Larger sizes are available as a special order.
- NOTE: Avoid bottoming or shouldering studs to avoid shearing or damaging stud or workpiece.





Pulling Plate

Product Code	Description
87031	Pulling Plate

Features

- Ideal where there is no gripping surface for the puller alone.
- Plate is attached to item being pulled - with puller clamped behind the plate.
- Plate allows pulling action where space does not allow for puller accessories.
- Includes 4 each of the following screws: $\frac{1}{4}$ - 20 x $\frac{3}{4}$ " and $\frac{1}{4}$ - 28 x 1".
- Plate diameter is 3 $\frac{5}{8}$ ".



87031

PULLERS & INDUSTRIAL HYDRAULICS

STUD REMOVER & PARTS



Crossbar

Product Code	Description
CG10F	Crossbar for 6 - 7 $\frac{1}{2}$ ton slide hammer puller screws

Features

- Ideal for turning the slide hammer screws.
- Fits 87017 Slide Hammer set.



CG10F



Replacement Pressure Screw Points

Product Code	Description
87028	Screw point for 6 and 7 $\frac{1}{2}$ ton pullers
87029	Screw point for 10 and 12 $\frac{1}{2}$ ton pullers
87030	Screw point for 20 ton pullers

Features

- Match screw point to puller capacity.



87030



87029



87028



Puller Replacement Parts

2 Ton & 2-1/2 Ton Puller Group

Product Code	Product Description	Capacity (Tons)	2-Jaw Yoke	3-Jaw Yoke	Std. Pres. Screw	Slide Screw	Slide Hammer	2-Jaw Lock Plate	3-Jaw Lock Plate	Spring	Adjusting Nut	Standard Jaw	Long Jaw
87001	2 TON, 2 JAW PULLER	2	CG240-2		CG240-1	CG240-8	CG240-9	CG240-5		CG240-6	CG240-7	CG240-3	
87002	2 TON, 2 JAW PULLER	2	CG240-2		CG240-11	CG240-8	CG240-9	CG240-5		CG240-6	CG240-7		CG240-10
87003	2 $\frac{1}{2}$ TON, 3 JAW PULLER	2 $\frac{1}{2}$		CG243-2	CG240-1	CG240-8	CG240-9		CG243-5	CG240-6	CG240-7	CG240-3	
87004	2 $\frac{1}{2}$ TON, 3 JAW PULLER	2 $\frac{1}{2}$		CG243-2	CG240-11	CG240-8	CG240-9		CG243-5	CG240-6	CG240-7		CG240-10

6 Ton & 7-1/2 Ton Puller Group

Product Code	Product Description	Capacity (Tons)	2-Jaw Yoke	3-Jaw Yoke	Std. Pres. Screw	Slide Screw	Slide Hammer	2-Jaw Lock Plate	3-Jaw Lock Plate	Spring	Adjusting Nut	Standard Jaw	Long Jaw
87005	6 TON, 2 JAW PULLER	6	CG250-2		CG250-1A	CG250-8A	CG250-9	CG250-5		CG250-6	CG250-7	CG250-3	
87006	6 TON, 3 JAW PULLER	6		CG253-2	CG250-1A	CG250-8A	CG250-9		CG250-5	CG250-6	CG250-7		CG250-10
87007	7 $\frac{1}{2}$ TON, 3 JAW PULLER	7 $\frac{1}{2}$		CG253-2	CG250-1A	CG250-8A	CG250-9		CG250-5	CG250-6	CG250-7	CG250-3	

10 Ton & 12-1/2 Ton Puller Group

Product Code	Product Description	Capacity (Tons)	2-Jaw Yoke	3-Jaw Yoke	Std. Pres. Screw	Slide Screw	Slide Hammer	2-Jaw Lock Plate	3-Jaw Lock Plate	Spring	Adjusting Nut	Standard Jaw	Long Jaw	Extension Piece - 8 $\frac{1}{4}$ "
87008	10 TON, 2 JAW PULLER	10	CG270-2		CG270-1A	CG270-8A	CG66-2	CG270-5		CG270-6	CG270-7	CG270-3		
87009	10 TON, 2 JAW PULLER	10	CG270-2		CG270-11A	CG270-8A	CG66-2	CG270-5		CG270-6	CG270-7		CG270-10	CG270-13
87012	10 TON, 2 JAW PULLER	10	CG270-2		CG270-11A	CG270-8A	CG66-2	CG270-5		CG270-6	CG270-7		CG270-12	CG270-13
87010	12 $\frac{1}{2}$ TON, 3 JAW PULLER	12 $\frac{1}{2}$		CG273-2	CG270-11A	CG270-8A	CG66-2		CG273-5	CG270-6	CG270-7	CG270-3		
87011	12 $\frac{1}{2}$ TON, 3 JAW PULLER	12 $\frac{1}{2}$		CG273-2	CG270-11A	CG270-8A	CG66-2		CG273-5	CG270-6	CG270-7		CG270-10	CG270-13
87013	12 $\frac{1}{2}$ TON, 3 JAW PULLER	12 $\frac{1}{2}$		CG273-2	CG270-11A	CG270-8A	CG66-2		CG273-5	CG270-6	CG270-7		CG270-12	CG270-13

20 Ton Puller Group

Product Code	Product Description	Capacity (Tons)	2-Jaw Yoke	3-Jaw Yoke	Std. Pres. Screw	Slide Screw	Slide Hammer	2-Jaw Lock Plate	3-Jaw Lock Plate	Spring	Adjusting Nut	Standard Jaw	Long Jaw	Plug
87014	20 TON, 2 JAW PULLER	20	CG300-2		CG300-1			CG300-5		CG300-6	CG300-7	CG300-3		
87015	20 TON, 2 JAW PULLER	20	CG300-2		CG305-8			CG300-5		CG300-6	CG300-7		CG305-9	
87045	20 TON, $\frac{2}{3}$ JAW PULLER	20	CG400-2	CG400-2	CG300-1			CG400-5	CG400-5	CG400-6	CG400-7	CG300-3		CG343-1

Single Acting Cylinders

- 39 models.
- Internal plunger threads.
- Snap in grooved saddles.
- Rod wiper seals out dirt and contamination.
- Collar fixture threads.
- Two base mounting holes on most models.
- High strength steel construction from gun drilled solid bar.
- High flow 3/8" NPTF couplers.
- Collar thread protector.
- One piece high grade alloy bearing for side load protection and long life.
- Polyurethane cup seal provides optimum performance.
- Industrial hard chrome plated ram helps prevent rust and corrosion.
- Solid steel cylinder body.
- Heavy duty return spring provides quicker retraction.
- Ideal for lifting and pressing.
- Maximum working pressure: 10,000 psi / 700 bar.



6C05T05



6C05T07

CYLINDER DIMENSIONS

Cylinder Capacity	Stroke	Product Code	Cylinder Effective Area	Pressure at Capacity	Oil Capacity	Collapsed Height	Extended Height	Cylinder Bore Dia.	Outside Dia.	Plunger Dia.	
[tons]	[in]		[in²]	[psi]	[in³]	A [in]	B [in]	C [in]	D [in]	E [in]	
5	0.63	6C05T00	1.10	9,090	0.69	1.61	2.24	1.18	2.36 x 1.58	0.98	
	1.00	6C05T01	1.00	10,000	1.00	4.58	5.58	1.13	1.50	1.00	
	3.07	6C05T03			3.07	6.65	9.72				
	5.08	6C05T05			5.08	8.70	59.50				
	7.09	6C05T07			7.09	10.71	17.80				
	9.09	6C05T09			9.09	12.72	21.81				
10	1.00	6C10T01	2.24	8,930	2.24	3.62	4.62	1.69	2.26	1.49	
	2.01	6C10T02			4.50	4.84	6.85	1.69	2.26	1.49	
	4.02	6C10T04			9.00	6.85	10.87				
	5.94	6C10T06			13.31	9.84	15.78				
	7.95	6C10T08			17.81	11.85	19.80				
	9.96	6C10T10			22.31	13.86	23.82				
	11.97	6C10T12			26.81	15.87	27.84				
	14.02	6C10T14			31.40	17.72	31.74				

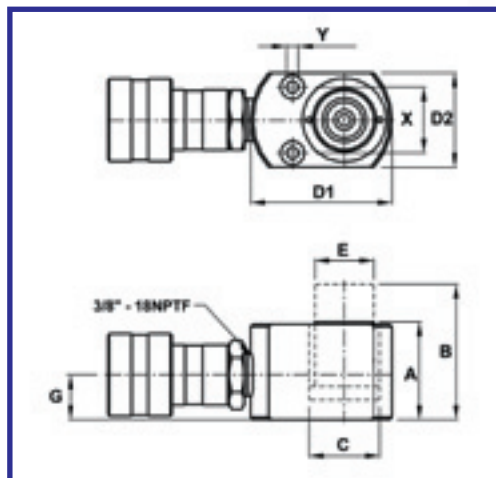
**SINGLE ACTING
CYLINDERS**



6C10T02

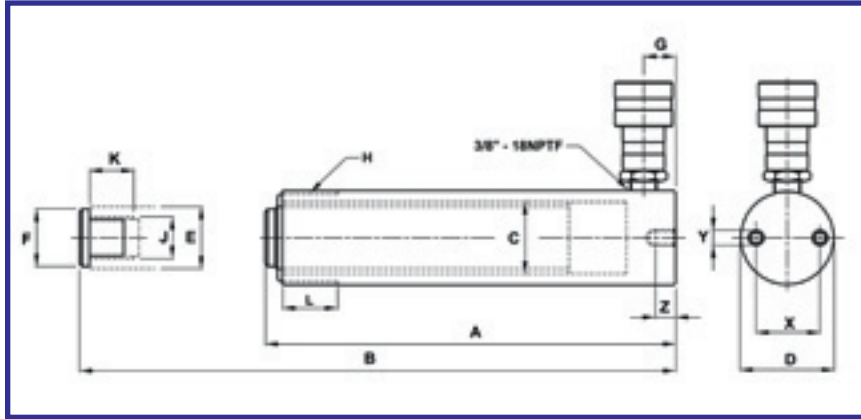


6C10T06



	Saddle Dia.	Base to Inlet Port	Collar Thread	Collar Thread Length	Plunger Internal Thread	Plunger Thread Length	Base Mounting Hole			Product Code
							Bolt Circle	Thread	Thread Depth	
	F [in]	[in]	[in]	[in]	[in]	[in]	[in]	[in]	[in]	
	N/A	0.75	N/A	N/A	N/A	N/A	1.10	0.2	N/A	6C05T00
	0.98	0.79	1 1/2 -16	1.10	3/4"-16UNF	0.63	1.00	1/4" - 20UNC	0.55	6C05T01
										6C05T03
										6C05T05
										6C05T07
										6C05T09
	N/A	0.77	2 1/4 -14	1.30	#10-24UNC	0.24	1.56	5/16" - 18UNC	0.55	6C10T01
	1.38	0.77	2 1/4 -14	1.30	1"-8UNC	0.79	1.56	5/16"-18UNC	0.55	6C10T02
										6C10T04
										6C10T06
										6C10T08
										6C10T10
										6C10T12
										6C10T14

Single Acting Cylinders



6C30T08

CYLINDER DIMENSIONS

Cylinder Capacity	Stroke	Product Code	Cylinder Effective Area	Pressure at Capacity	Oil Capacity [in ³]	Collapsed Height	Extended Height	Cylinder Bore Dia.	Outside Dia.	Plunger Dia.	Saddle Dia.	
[tons]	[in]		[in ²]	[psi]		A [in]	B [in]	C [in]	D [in]	E [in]	F [in]	
15	0.99	6C15T01	3.14	9,550	3.11	4.88	5.87	2.00	2.75	1.63	1.50	
	2.01	6C15T02			6.31	5.87	7.88					
	3.98	6C15T04			12.50	7.87	11.85					
	5.87	6C15T06			18.43	10.67	16.54					
	7.87	6C15T08			24.71	12.68	20.55					
	9.88	6C15T10			31.02	14.69	24.57					
	12.01	6C15T12			37.71	16.65	28.66					
	14.02	6C15T14			44.02	18.66	32.68					
25	1.02	6C25T01	5.14	9,730	5.24	5.84	6.86	2.56	3.35	2.24	1.97	
	2.01	6C25T02			10.33	6.82	8.83					
	3.94	6C25T04			20.25	8.78	12.72					
	5.94	6C25T06			30.53	10.79	16.73					
	7.95	6C25T08			40.86	12.80	20.75					
	9.96	6C25T10			51.19	14.80	24.76					
	12.24	6C25T12			62.91	16.73	28.97					
	14.25	6C25T14			73.25	18.74	32.99					
30	8.27	6C30T08	6.49	9,240	53.67	15.24	23.51	2.87	4.00	2.24	2.13	
55	2.01	6C55T02	10.99	10,000	22.09	6.93	8.94	3.74	5.00	3.15	2.76	
	3.98	6C55T04			43.74	8.94	12.92					
	6.22	6C55T06			68.36	11.14	17.36					
	13.27	6C55T13			145.84	18.15	31.42					
75	6.14	6C75T06	16.10	9,320	98.85	11.22	17.36	4.53	5.79	3.74	2.76	
	13.11	6C75T13			211.07	19.37	32.48					
100	6.61	6C100T06	20.57	9,720	135.97	14.06	20.67	5.12	6.97	4.13	2.76	
	10.24	6C100T13			210.64	17.68	27.92					



PULLERS & INDUSTRIAL HYDRAULICS

SINGLE ACTING CYLINDERS



6C15T06



6C25T10



6C55T06

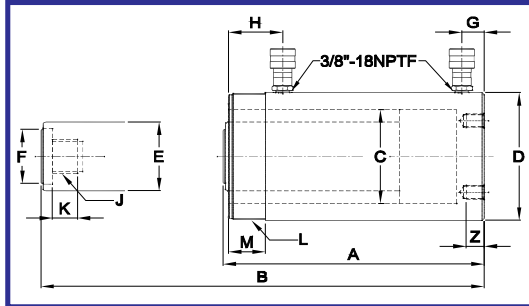
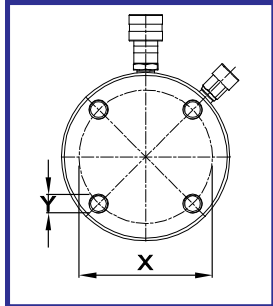


6C100T06

	Base to Inlet Port	Collar Thread	Collar Thread Length	Plunger Internal Thread	Plunger Thread Length	Base Mounting Hole			Product Code
						Bolt Circle	Thread	Thread Depth	
	G (in)	H (in)	L (in)	J (in)	K (in)	X (in)	Y (in)	Z (in)	
	.98	2 3/4 .16	1.18	1"-8UNC	0.98	1.88	3/8"-16UNC	0.51	6C15T01 6C15T02 6C15T04 6C15T06 6C15T08 6C15T10 6C15T12 6C15T14
	0.98	3 5/16 .12	1.93	1 1/2 .16	1.18	2.31	1/2"-13UNC	0.75	6C25T01 6C25T02 6C25T04 6C25T06 6C25T08 6C25T10 6C25T12 6C25T14
	1.97	3 5/16 .12	1.93	1 1/2 .16	1.18	N/A			6C30T08
	1.22	5 .12	2.17	N/A		3.75	1/2"-13UNC	0.75	6C55T02 6C55T04 6C55T06 6C55T13
	1.18	5 3/4 .12	1.73	N/A					6C75T06 6C75T13
	1.57	6 7/8 .12	1.73	N/A		5.50	3/4"-10UNC	1	6C100T06 6C100T13

Double Acting Cylinders

- Rod wiper seals out dirt and contamination.
- High strength steel construction from gun drilled solid bar.
- High flow 3/8" NPTF couplers.
- One piece high grade alloy bearing for side load protection and long life.
- Ideal for pushing and pulling.
- Maximum working pressure: 10,000 psi / 700 bar.



6CD55T13

DOUBLE ACTING CYLINDER SPECIFICATIONS

Cylinder Capacity	Stroke	Product Code	Maximum Cylinder Capacity		Cylinder Effective Area		Oil Capacity		Collapsed Height	Extended Height	Cylinder Bore Dia.	Outside Dia.
			Push [ton]	Pull [ton]	Push [in ²]	Pull [in ²]	Push [in ³]	Pull [in]				
10	10.04	6CD10T10	11.4	3.8	2.23	0.74	22.41	7.47	16.14	26.18	1.69	2.87
	11.97	6CD10T12					26.71	8.90	18.03	30.00		
30	8.15	6CD30T08	32.9	16.2	6.49	3.19	52.93	26.02	15.31	23.46	2.87	3.98
	14.49	6CD30T15					94.09	46.26	21.65	36.14		
55	6.18	6CD55T06	55.7	16.2	10.99	3.19	67.93	19.74	13.03	19.21	3.74	5.00
	13.19	6CD55T13					144.94	42.11	20.04	33.23		
	20.12	6CD55T20					221.09	64.24	28.86	49.98		
75	6.10	6CD75T06	81.7	25.9	16.09	5.12	98.1	31.21	13.70	19.80	4.53	5.75
	13.11	6CD75T13					210.93	67.06	20.71	33.82		
100	6.57	6CD100T06	104.4	48.6	20.57	9.58	135.23	62.98	14.06	20.63	5.12	6.97
	13.11	6CD100T13					269.66	125.58	20.63	33.74		
	18.15	6CD100T18					373.31	173.86	27.05	45.20		

DOUBLE ACTING CYLINDER DIMENSIONS

Product Code	Plunger Dia.	Saddle Dia.	Base to Adv. Port	Top to Return Port	Plunger Internal Thread	Plunger Thread Length	Collar Thread	Collar Thread Length	Base Mounting Hole			Weight [lbs]
	E [in]	F [in]	G [in]	H [in]	J [in]	K [in]	L [in]	M [in]	Bolt Circle X [in]	Thread Y [in]	Thread Depth Z [in]	
6CD10T10	1.37	1.38	1.42	2.09	1 - 8	0.98	2 1/4 - 14	1.02	N/A			26.7
6CD10T12												30.0
6CD30T08	2.13	1.97	1.65	2.91	1 1/2 - 16	0.98	3 5/16 - 12	1.93	N/A			43.0
6CD30T15												60.6
6CD55T06	3.14	2.76	1.14	2.87	1 - 12	0.98	5 - 12	1.73	N/A			70.5
6CD55T13												104.0
6CD55T20			2.48									146.2
6CD75T06	3.75	2.76	1.18	2.80	1 - 12	1.50	5 3/4 - 12	1.50	N/A			93.7
6CD75T13												136.8
6CD100T06	3.75	2.95	1.22	2.95	1 3/4 - 12	1.38	6 7/8 - 12	1.97	5.47	3/4 - 10	0.98	138.6
6CD100T13												193.6
6CD100T18			1.50									248.3

Lock Nut Cylinders

- Single acting cylinder with mechanical safety lock nut.
- Designed to support load for extended periods without hydraulic pressure.
- Overflow port prevents cylinders from over travel.
- Load return.
- Solid steel cylinder body.
- Ideal for lifting and holding loads.
- Maximum working pressure: 10,000 psi / 700 bar



6CN55T12

PULLERS & INDUSTRIAL HYDRAULICS

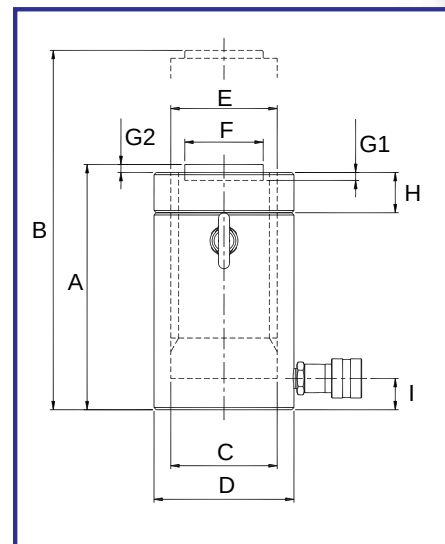
SINGLE ACTING CYLINDERS

LOCK NUT CYLINDERS SPECIFICATIONS

Cylinder Capacity	Stroke	Product Code	Cylinder Effective Area	Oil Capacity	Collapsed Height	Extended Height	Cylinder Bore Diameter	Outside Diameter	Plunger Outside Thread
[tons]	[in]		[in ²]	[in ³]	A [in]	B [in]	C [in]	D [in]	E
55	1.97	6CN55T02	10.99	21.65	6.5	8.4	3.7	4.9	Tw95-6N
	3.94	6CN55T04		43.27	8.4	12.4			
	5.91	6CN55T06		64.90	10.4	16.3			
	7.87	6CN55T08		86.54	12.4	20.2			
	9.84	6CN55T10		108.17	14.3	24.2			
	11.81	6CN55T12		129.80	16.3	28.1			
100	1.97	6CN100T02	20.57	40.49	7.4	9.3	5.1	6.5	Tw130-4N
	3.94	6CN100T04		80.98	9.3	13.3			
	5.91	6CN100T06		121.48	11.3	17.2			
	7.87	6CD100T08		161.97	13.3	21.1			
	9.84	6CN100T10		202.46	15.2	25.1			
	11.81	6CN100T12		242.95	17.2	29.0			

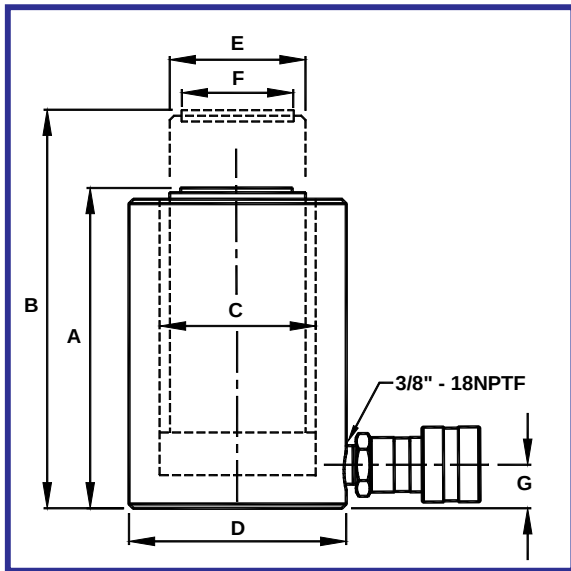
LOCK NUT CYLINDERS DIMENSIONS

Product Code	Saddle Diameter	Depth of Plunger Hole	Saddle Protrusion from Plunger	Lock Nut Length	Base to Inlet Port	Weight [lbs]	
	F [in]	G1 [in]	G2 [in]	H [in]	I [in]		
6CN55T02	2.8	0.08	0.51	1.4	1.1	34.0	
6CN55T04						44.5	
6CN55T06						55.1	
6CN55T08						65.9	
6CN55T10						76.5	
6CN55T12						87.1	
6CN100T02				1.8		67.2	
6CN100T04						85.8	
6CN100T06						104.3	
6CD100T08						122.6	
6CN100T10						141.1	
6CN100T12						159.6	



Aluminum Cylinders

- Lightweight aluminum alloy construction.
- Up to 60 percent lighter than comparable tonnage steel rams.
- Convenient carry handle.
- Hard anodized aluminum piston rod provides extra protection against corrosion and wear.
- Maximum working pressure: 10,000 psi / 700 bar.



6CA30T06

ALUMINUM CYLINDER DIMENSIONS

Cylinder Capacity	Stroke	Product Code	Cylinder Effective Area	Internal Pressure at Capacity	Oil Capacity	Collapsed Height	Extended Height	Cylinder Bore Dia.	Outside Dia.	Plunger Dia.	Saddle Dia.	Base to Inlet Port	Weight
[tons]	[in]		[in²]	[psi]	[in³]	A [in]	B [in]	C [in]	D [in]	E [in]	F [in]	G [in]	[lbs]
30	2.00	6CA30T02	6.50	9,231	13.00	6.50	8.50	2.90	4.50	2.50	2.00	1.5	11.0
	4.00	6CA30T04			26.00	8.50	12.50						14.0
	6.00	6CA30T06			39.00	10.50	16.50						17.0
50	2.00	6CA50T02	11.00	9,091	22.00	6.50	8.50	3.70	5.50	3.10	2.50		17.0
	4.00	6CA50T04			44.00	8.50	12.50						21.0
	6.00	6CA50T06			66.00	10.50	16.50						25.0
	10.00	6CA50T10			110.00	14.50	24.50						34.0
75	4.00	6CA75T04	15.00	10,000	60.00	8.50	12.50	4.40	6.50	3.90	3.00		29.0
	6.00	6CA75T06			90.00	10.50	16.50						35.0
100	2.00	6CA100T02	20.70	9,662	41.40	6.50	8.50	5.10	8.00	4.30	3.50		36.0
	4.00	6CA100T04			82.80	8.50	12.50						43.0
	6.00	6CA100T06			124.40	10.50	16.50						51.0
	10.00	6CA100T10			207.0	14.50	24.50						68.0

Flat Body Cylinders

- Made of high quality steel.
- Extremely low collapsed height for applications with minimal clearance at the lift point.
- Great for areas of low clearance.
- Maximum working pressure 10,000 psi / 700 bar.



6CF10T05



6CF10T05



6CF20T05



6CF05T03

PULLERS & INDUSTRIAL HYDRAULICS

CYLINDER & FLAT BODY CYLINDERS

FLAT BODY CYLINDER DIMENSIONS

Cylinder Capacity	Stroke	Product Code	Cylinder Effective Area	Pressure at Capacity	Oil Capacity	Collapsed Height	Extended Height	Outside Dim.	Cylinder Bore Dia.	Plunger Dia.	Base to Port	Plunger to Base	Plunger to Mtg. Hole
								D1 x D2					
[tons]	[in]		[in ²]	[psi]	[in ³]	A [in]	B [in]	[in]	C [in]	E [in]	G [in]	L [in]	M [in]
5	0.24	6CF05T03	1.10	9,090	0.26	1.26	1.5	2.4 x 1.6	1.18	0.98	0.69	0.80	0.87
10	0.43	6CF10T05	2.36	8,470	1.01	1.69	2.12	3.3 x 2.2	1.73	1.50	0.77	1.12	1.32
20	0.43	6CF20T05	4.38	9,130	1.88	2.01	2.44	4.0 x 3.0	2.36	2.00	0.75	1.54	1.56
30	0.51	6CF30T05	6.49	9,240	3.31	2.31	2.82	4.6 x 3.8	2.87	2.50	0.79	1.88	1.75

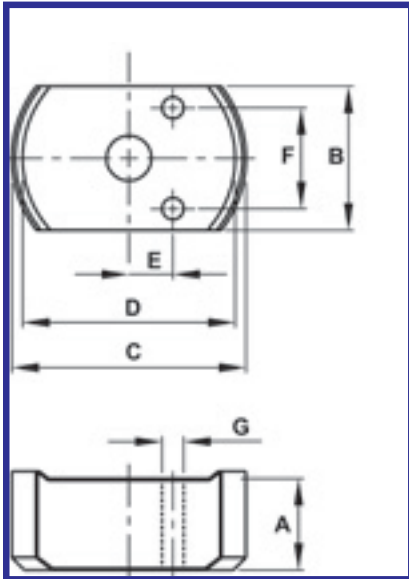
FLAT BODY CYLINDER KIT DIMENSIONS

Cylinder Capacity	Stroke	Product Code	Cylinder Model	Oil Capacity	Collapsed Height	Includes Adapter	Adapter Dimensions [in]						
							A	B	C	D	E	F	G
5	0.24	6CF05T03TB	6CF05T03	0.26	1.26	I	0.25	1.61	2.56	2.32	0.48	1.10	0.24
						II	0.5						
						III	1						
						IV	1.25						
10	0.43	6CF10T05TB	6CF10T05	1.02	1.69	I	0.39	2.20	3.54	3.23	0.81	1.46	0.28
						II	0.79				N/A		
						III	1.57						
20	0.43	6CF20T05TB	6CF20T05	1.90	2.01	I	0.39	2.99	4.25	3.94	1.08	1.93	0.39
						II	0.79				N/A		
						III	1.57						
30	0.51	6CF30T05TB	6CF30T05	3.32	2.31	I	0.39	3.75	4.76	4.45	1.32	2.06	0.39
						II	0.79				N/A		
						III	1.57						

Flat Body Cylinder Kits

- Various height magnetic adapters.
- Perfect for low clearance areas needing a cylinder height boost.
- Maximum working pressure: 10,000 psi / 700 bar.
- Kits include magnetic adapters and carrying case.

Flat Body Kit Spacers



6CF05T03TB

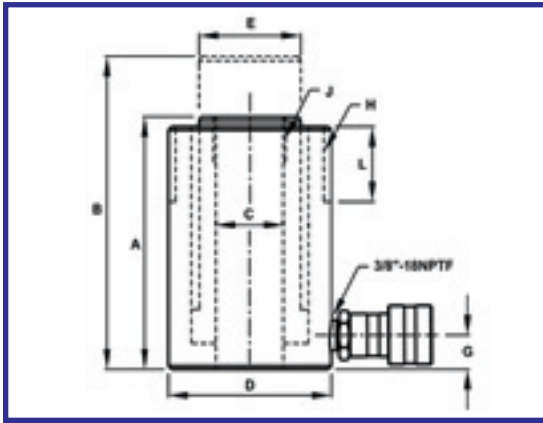
FLAT BODY CYLINDER KIT DIMENSIONS

Cylinder Capacity [tons]	Stroke [in]	Product Code	Cylinder Model	Oil Capacity [in ³]	Collapsed Height [in]	Includes Adapter	Adapter Dimensions [in]						
							A	B	C	D	E	F	G
5	0.24	6CF05T03TB	6CF05T03	0.26	1.26	I	0.25	1.61	2.56	2.32	0.48	1.10	0.24
						II	0.5						
						III	1						
						IV	1.25						
10	0.43	6CF10T05TB	6CF10T05	1.02	1.69	I	0.39	2.20	3.54	3.23	0.81	1.46	0.28
						II	0.79				N/A		
						III	1.57				N/A		
20	0.43	6CF20T05TB	6CF20T05	1.90	2.01	I	0.39	2.99	4.25	3.94	1.08	1.93	0.39
						II	0.79				N/A		
						III	1.57				N/A		
30	0.51	6CF30T05TB	6CF30T05	3.32	2.31	I	0.39	3.75	4.76	4.45	1.32	2.06	0.39
						II	0.79				N/A		
						III	1.57				N/A		



Hollow Hole Cylinders

- 6 standard models.
- Ideal for some pulling and pushing applications.
- Heavy duty compression spring.
- Dual wipers help prevent contamination.
- Collar thread protector.
- High flow coupler with dust cap.



6CH30T06

PULLERS & INDUSTRIAL HYDRAULICS

HOLLOW HOLE CYLINDERS & KITS

HOLLOW HOLE CYLINDER DIMENSIONS

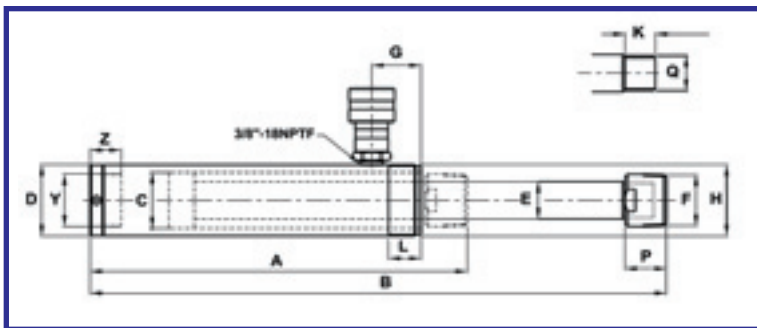
Cylinder Capacity	Stroke	Product Code	Cylinder Effective Area	Pressure at Capacity	Oil Cap.	Min. Height	Max. Height	O.D.	Plunger			
									I.D.	O.D.	Internal Thread	Internal Thread Length
[tons]	[in]		[in ²]	[psi]	[in ³]	A [in]	B [in]	D [in]	C [in]	E [in]	J [in]	K [in]
20	2.01	6CH20T02	4.90	8,167	9.83	6.38	8.39	3.92	1.063	2.15	1 9/16"-16UN	0.75
	6.06	6CH20T06			29.70	12.05	18.11					
30	2.52	6CH30T02	6.32	9,488	15.93	7.05	9.57	4.50	1.311	2.48	1 13/16"-16UN	0.87
	6.11	6CH30T06			38.67	13.02	19.13					
60	3.00	6CH60T03	13.05	9,195	39.10	9.77	12.77	6.252	2.126	3.66	2 3/4"-16UN	0.75
100	3.00	6CH100T03	22.13	9,036	66.31	10.00	13.00	8.386	3.110	4.92	4"-16UN	0.98

HOLLOW HOLE CYLINDER SPECIFICATIONS

Product Code	Collar Thread		Base to Inlet Port	Base Mounting Hole			Weights
	Dia.	Lgth.		Bolt Circle	Thread	Thread Depth	
	H [in]	L [in]		X [in]	Y [in]	Z [in]	
6CH20T02	3 7/8-12	1.50	0.75	3.25	3/8"-16UNC	0.37	15.9
6CH20T06							29.5
6CH30T02	4 1/2-12	1.75	0.81		3/8"-16UNC	0.55	22.9
6CH30T06							43.0
6CH60T03	6 1/4-12	2	1.00		1/2"-13UNC	0.55	65.7
							81.1
6CH100T03	6 3/8-12	2.38	1.06	7.01	5/8"-11UNC	0.75	113.3

Pull Cylinders

- High strength steel construction.
- One piece high grade alloy bearing for side load protection and longer life.
- Polyurethane cup seal helps provide optimum performance.
- External plunger threads.
- Internal base threads.
- Used for pulling and tensioning.
- Maximum working pressure: 10,000 psi / 700 bar.



6CP02T05

PULL CYLINDER DIMENSIONS

Cylinder Capacity	Stroke	Product Code	Cylinder Effective Area	Pressure at Capacity	Oil Capacity	Collapsed Height	Extended Height	Outside Dia.	Cylinder Bore Dia.	Top to Inlet Port	Collar	
											Thread	Thread Length
[tons]	[in]		[in ²]	[psi]	[in ³]	A [in]	B [in]	D [in]	C [in]	G [in]	H [in]	L [in]
2.5	5.00	6CP02T05	0.56	8,930	2.78	10.55	15.55	1.89	1.13	1.65	1 1/2"-16	0.98
5	5.55	6CP05T05	1.14	8,770	6.34	11.85	17.35	2.25	1.69	1.50	2 1/4"-14	1
10	5.95	6CP10T06	2.44	8,200	14.48	11.75	17.7	3.35	2.17	1.50	M85x2	1

Product Code	Adapter		Plunger			Base Mounting Hole	
	Thread	Length	Dia.	Thread Length	Thread	Thread	Depth
	F [in]	P [in]	E [in]	K [in]	Q [mm]	H	Z [in]
6CP02T05	3/4"-14NPTF	1.13	0.75	0.76	M16x1.5	3/4"-14NPTF	0.72
6CP05T05	1 1/4"-11.5NPTF	1.25	1.18	0.93	M28x1.5	1 1/4"-11.5NPTF	0.95
6CP10T06	-	-	1.26	1.02	M30x2	M30x2	0.98





Threaded Hole Cylinders

- High quality threaded single acting cylinders.
- Removable threaded plunger adapter allows for the use of a variety of threaded attachments.
- Used to attach accessories to rod end and base.
- Maximum working pressure: 10,000 psi / 700 bar.

PULLERS & INDUSTRIAL HYDRAULICS

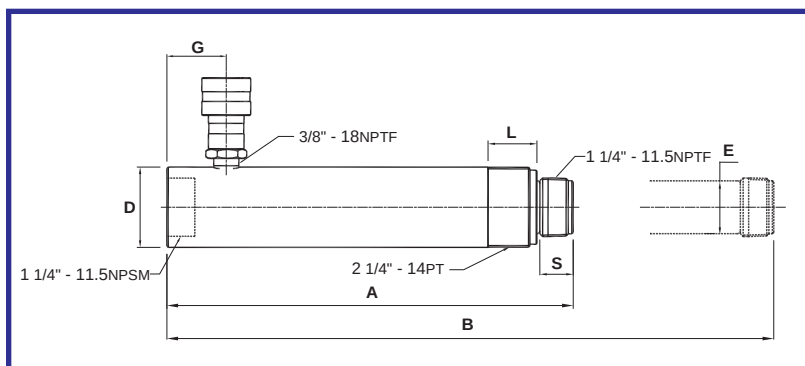
THREADED HOLE & PULL CYLINDERS



6CT10T06



6CT10T10



THREADED HOLE CYLINDER DIMENSIONS

Cylinder Capacity	Stroke	Product Code	Cylinder Effective Area	Pressure at Capacity	Oil Capacity	Collapsed Height	Extended Height	Outside Dia.	Plunger Dia.	Base to Inlet Port	Collar Thread Length	Saddle Height
[tons]	[in]		[in ²]	[psi]	[in ³]	A [in]	B [in]	D [in]	E [in]	G [in]	L [in]	S [in]
10	5.95	6CT10T06	2.24	8,930	13.33	11.46	17.41	2.26	1.49	1.67	1.13	0.94
10	9.96	6CT10T10			22.31	15.47	25.43					

Low Profile Cylinders

- Compact design for use in confined spaces.
- Rod wiper helps seal out dirt and contamination.
- Specially designed return spring ensures a quick retraction and extends the life of the spring.
- Industrial hard chrome plated ram helps prevent scratching and corrosion.
- Plunger end is grooved to reduce load slippage.
- Includes high flow ball coupler and dust cap.
- Coupler is tilted upward for added clearance.
- Maximum working pressure: 10,000 psi/700 bar.



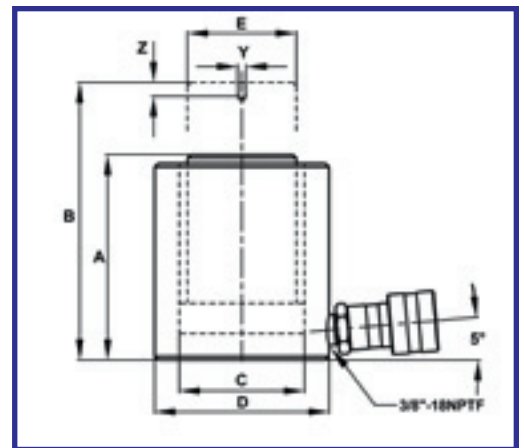
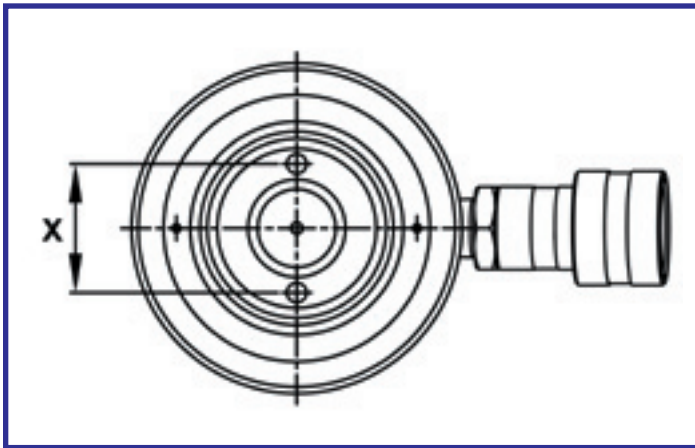
6CL20T02



6CL30T02



6CL10T01



LOW PROFILE CYLINDER DIMENSIONS

Cylinder Capacity	Stroke	Product Code	Cylinder Effective Area	Internal Pressure at Capacity	Oil Capacity	Collapsed Height	Extended Height	Outside Dia.	Cylinder Bore Dia.	Plunger Dia.	Plunger Mounting		
						A	B				Bolt Circle	Thread	Thread Depth
[tons]	[in]		[in ²]	[psi]	[in ³]	[in]	[in]	[in]	[in]	[in]	X	Y	Z
10	1.50	6CL10T01	2.35	8,511	3.53	3.48	4.98	2.75	1.73	1.50	1.03	M4	0.32
20	1.75	6CL20T02	4.37	9,153	7.65	3.90	5.65	3.63	2.36	2.00	1.56	M4	0.32
30	2.44	6CL30T02	6.49	9,245	15.84	4.61	7.05	4.00	2.87	2.50	1.56	M5	0.32



Hand Pumps

- 5HS2S35, 5HS2S100 and 5HS2S200 feature 2 speed operation.
- Pressure relief valve for overload protection.
- Load release valve for single acting cylinder usage.
- Large oil capacities to power a wide range of cylinders and tools.
- 5HS2S35 and 5HS2S100 are constructed of high strength lightweight aluminum alloy for easy handling and corrosion resistance.
- All hand pumps function in horizontal positions and will also function in some vertical positions.
- Maximum working pressure: 10,000 psi / 700 bar.

PULLERS & INDUSTRIAL HYDRAULICS

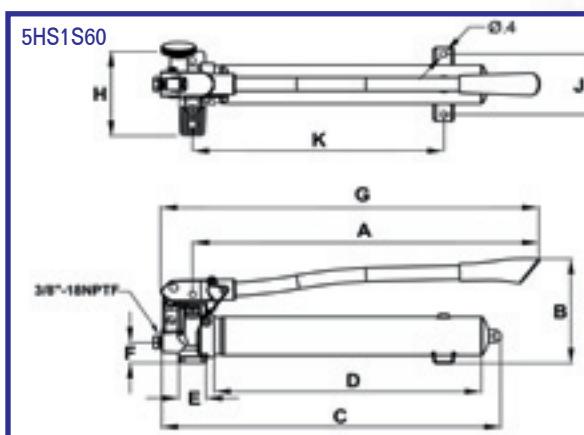
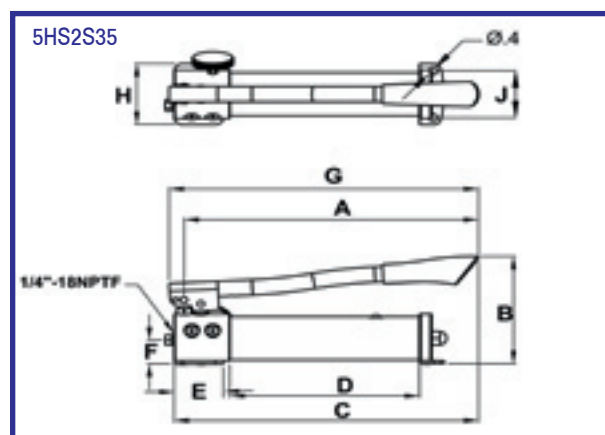
LOW PROFILE CYLINDERS & HAND PUMPS



5HS2S35



5HS1S60



HAND PUMP SPECIFICATIONS

Used with Cylinder	Pump Type	Usable Oil Capacity	Product Code	Pressure Rating		Oil Displacement per Stroke		Max. Operating Force	Piston Stroke	Oil Outlet Port
				[psi]	[in³]					
		[in³]		1st Stage	2nd Stage	1st Stage	2nd Stage			
Single Acting	Single-speed	36.5	5HS1S60		10,000		0.15	109	0.79	3/8".18NPTF
	Two-speed	21.4	5HS2S35	200		0.18	0.05	88	0.38	1/4".18NPTF
		61.0	5HS2S100			0.81	0.14	132	0.82	3/8".18NPTF
		128.0	5HS2S200							

Hand Pumps

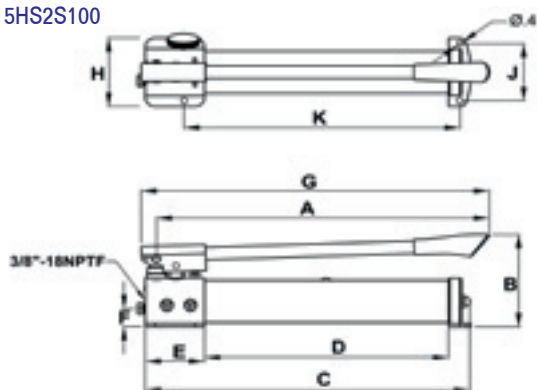


5HS2S100

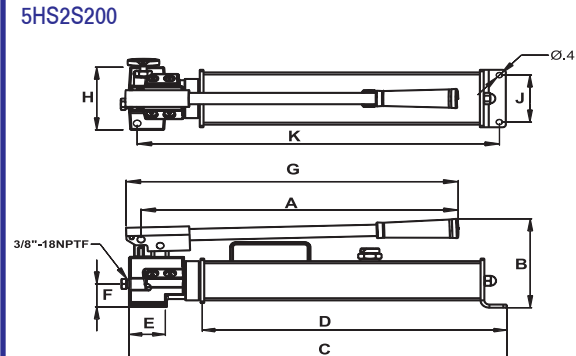


5HS2S200

5HS2S100



5HS2S200



HAND PUMP DIMENSIONS

Product Code	Dimensions [in]									
	A	B	C	D	E	F	G	H	J	K
5HS1S60	18.94	6.46	19.53	15.35	1.57	1.26	20.79	5.20	3.74	14.45
5HS2S35	13.43	5.91	13.89	9.09	2.36	1.34	14.13	3.35	2.56	-
5HS2S100	19.69	6.38	19.88	14.96	3.62	1.26	20.63	4.72	3.94	16.93
5HS2S200	19.75	6.64	23.69	18.37	2.36	1.73	20.71	4.72	3.54	22.56



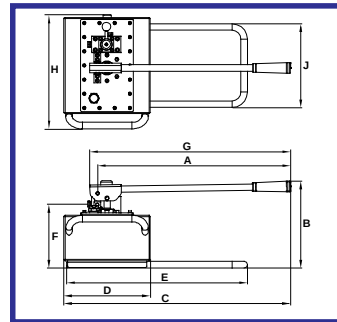
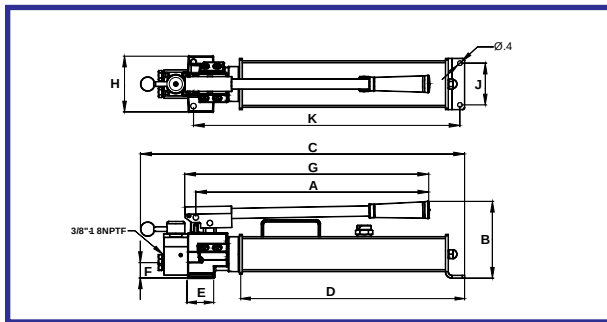
Double Acting Hand Pumps

- A 4-way control valve for operation of double acting cylinders.
- Large oil capacities to power a wide range of cylinders and tools.
- Two speed operation increases productivity and reduces user fatigue.

HAND PUMPS



5HD2S500



DOUBLE ACTING HAND PUMP SPECIFICATIONS

Used with Cylinder	Pump Type	Usable Oil Capacity	Product Code	Pressure Rating		Oil Displacement per Stroke		Max. Operating Force [lbs]	Piston Stroke [in]	Oil Outlet Port	Weight [lbs]
				1st Stage [psi]	2nd Stage [psi]	1st Stage [in ³]	2nd Stage [in ³]				
Double Acting	Two Speed	128.0	5HD2S100	200	10,000	0.81	0.14	132	0.82	3.8"-18NPTF	32.2
		476.0	5HD2S500	290		7.31	0.29	143	1.67		77.4

DOUBLE ACTING HAND PUMP DIMENSIONS

Product Code	Dimensions [in]									
	A	B	C	D	E	F	G	H	J	K
5HD2S100	19.75	6.64	23.69	18.37	2.36	1.73	20.71	4.72	3.54	22.56
5HD2S500	25.79	11.61	30.35	11.54	24.17	8.25	26.94	15.24	11.18	-

Air Pumps

- High strength reinforced aluminum alloy reservoir is lightweight and corrosion resistant.
- Pressure relief valve for overload protection.
- Suggested air pressure range: 90-175 psi / 6-12 bar.
- Designed to be used with single acting cylinders.
- Dust cover protection for the release control valve.
- Dual stage release control valve.
- 5AS200 offers a turbo function that features high flow at high pressure condition.
- 5AD150M offers a 4-way control valve for operation of double acting cylinders.
- Maximum working pressure: 10,000 psi / 700 bar.



5AD150M



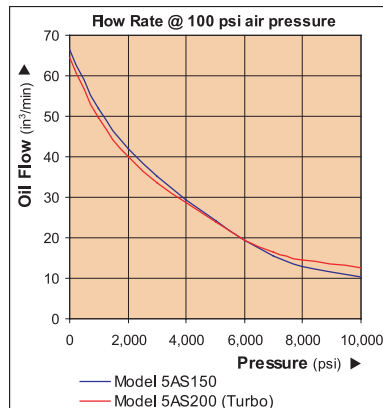
5AS200



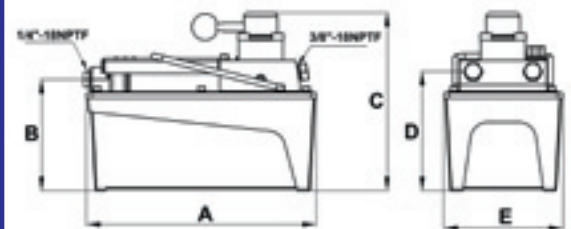
5AS150L

AIR PUMP SPECIFICATIONS

Used with Cylinder	Usable Oil Capacity [in ³]	Product Code	Pressure Rating [psi]	Oil Output Flow Rate [in ³ /min]		Input Air Pressure Range [psi]	Dimensions [in]				
				No Load	Load		A	B	C	D	E
Single Acting	36.6	5AS60	10,000	61	9	100-200	16.54	9.84	7.01	6.18	5.59
	91.5	5AS150		66	11		10.35	5.00	7.28	5.16	5.35
	122.1	5AS200		65	12		11.57	6.02	7.91	6.18	5.98
	231.9	5AS380		65	11		12.64	5.08	7.36	5.24	7.36
	91.5	5AS150L		61	10		10.98	6.30	8.03	5.12	5.35
	231.9	5AS380L		61	10		12.64	6.42	8.15	5.20	7.36
Double Acting	91.5	5AD150M	10,000	66	11	100-200	10.35	5.00	7.99	5.35	5.35



5AD150M



PULLERS & INDUSTRIAL HYDRAULICS

AIR PUMPS



5AS60

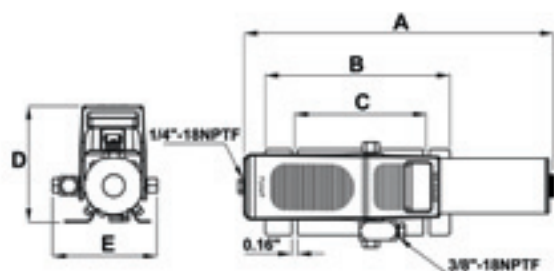


5AS150

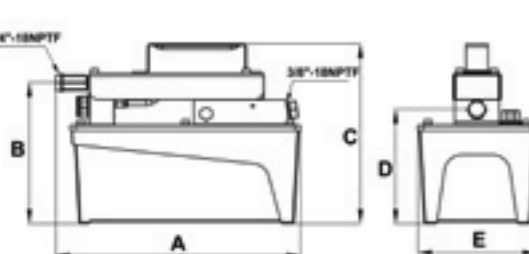


5AS380L

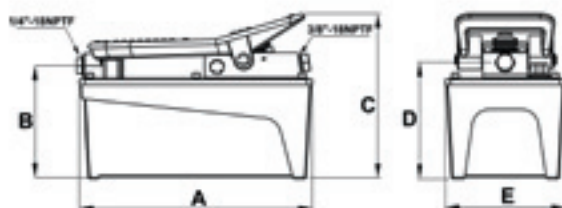
5AS60



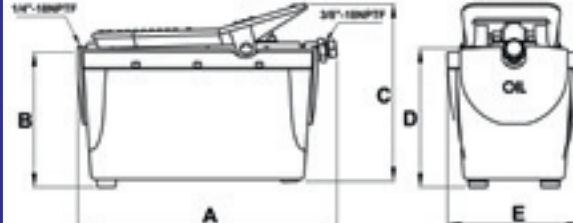
5AS150L & 5AS380L



5AS150 & 5AS380



5AS200



Electric Pumps

- Quiet operation meets OSHA regulations (80dBA).
- 2 speed operation allows for faster cylinder advance.
- Full load starting capacities.
- Internal filter keeps contamination from damaging pump.
- Rugged durable design meets the demands of industrial applications.
- Precision components to minimize wear and improve overall dependability.
- Designed to minimize the number of moving parts and maximize overall pump efficiency.
- Ideal for on site construction as well as maintenance.



5E0SH1G

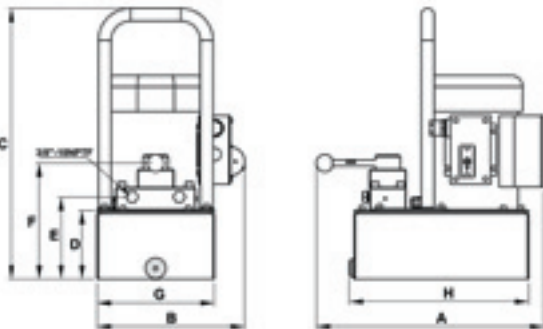


5E10H2GR

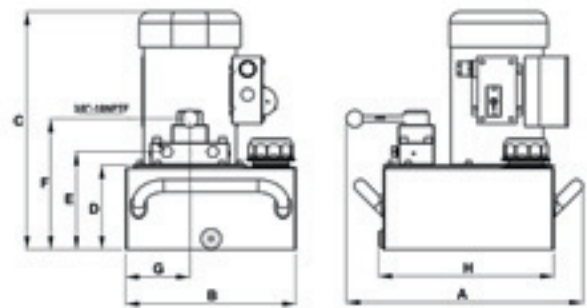


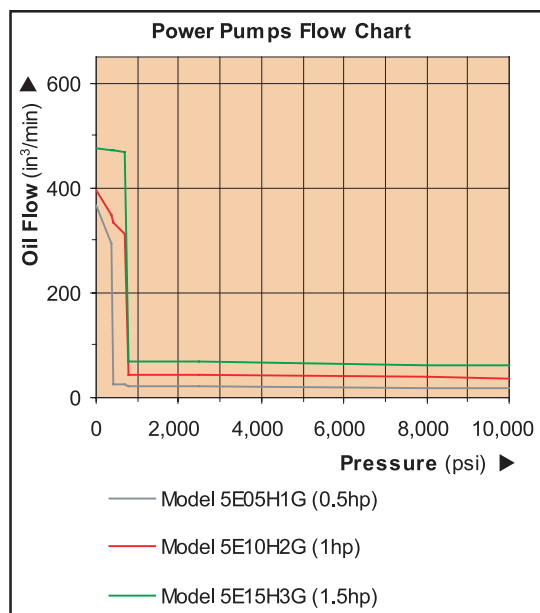
5E0SH1G

5E10SH2G



5E10H2G & 5E15H3G





ELECTRIC PUMP DIMENSIONS

Product Code	Dimensions (in)							
	A	B	C	D	E	F	G	H
5E05H1G	15.43	10.28	19.09	4.72	5.67	7.99	8.07	12.36
5E10H2G	16.65	12.01	17.83	5.94	6.89	9.21	4.53	12.36
5E15H3G	16.65	12.01	19.72	7.24	8.19	10.51	4.53	12.36

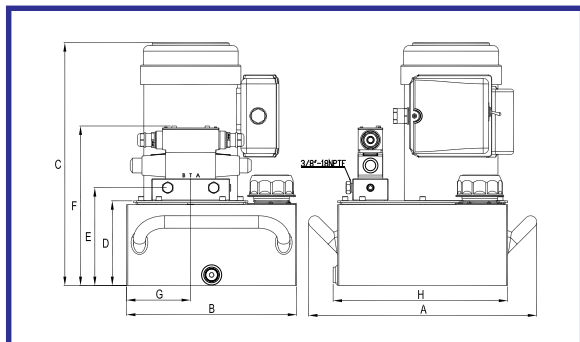
ELECTRIC PUMP SPECIFICATIONS

Motor Size	Usable Oil Capacity	Product Code	Product Code with Remote Control Pendant Switch	Max. Output Pressure	Oil Output Flow Rate		Valve Type	Valve Function	Current Draw	Motor Voltage	Sound Level
					1st Stage	2nd Stage					
[hp]	[gal]			[psi]	[in³]				[amps]	[volts]	[dBA]
0.5	1.0	5E05H1G	5E05H1GR	10,000	293	18	4-way, 3-pos.	Advance Hold Return	8	115	80
1.0	2.0	5E10H2G	5E10H2GR		311	37			15		
1.5	3.0	5E15H3G	5E15H3GR		470	61			17		



Electric Pumps With Solenoid Valve

- Quiet operation meets OSHA regulations (80dBA).
- Ideal for applications where a remote control is required.
- 2 speed operations allows for faster cylinder advance.
- Full load starting capabilities.
- Internal filter keeps contamination from damaging pump.
- 10 foot hand held remote controls the solenoid valve.



ELECTRIC PUMP WITH SOLENOID VALVE SPECIFICATIONS

Used with Cylinder	Motor Size	Usable Oil Capacity	Product Code	Pressure Rating		Oil Output Flow Rate		Valve Type	Valve Function	Current Draw	Motor Voltage	Weight
	[hp]	[gal]		1st Stage [psi]	2nd Stage [psi]	1st Stage [in ³ /min]	2nd Stage [in ³ / min]			[amps]	[volts]	[lbs]
Single Acting	0.5	1	5ES05H1G	350	10,000	293	18	3-way, 3-position	Advance/ Hold/ Return	9	115	61.5
		2	5ES05H2G									65.3
	1	2	5ES10H2G	700		311	37			12		72.6
		3	5ES15H3G									90.4
	1.5	5	5ES15H5G	470		61	17	98				
Double Acting	0.5	1	5ES05H1GR	350		293	18	4-way, 3-position		9	12	61.5
		2	5ES05H2GR									65.3
	1	2	5ES10H2GR	700		311	37			17	72.6	
		3	5ES15H3GR								72.6	
	1.5	5	5ES15H5GR	470		61	17	98				

ELECTRIC PUMP WITH SOLENOID VALVE DIMENSIONS

Product Code	Dimensions [in]							
	A	B	C	D	E	F	G	H
5ES05H1G	12.74	10.26	19.10	4.72	5.65	10.00	8.07	12.32
5ES05H2G	12.74	10.26	19.10	4.72	5.65	10.00	8.07	12.32
5ES10H2G	17.88	12.01	17.88	5.98	6.90	11.26	4.51	12.32
5ES15H3G	17.88	12.01	17.88	5.98	6.90	11.26	4.51	12.32
5ES15H5G	16.10	12.01	17.13	5.98	6.90	11.26	4.51	12.32
5ES05H1GR	16.10	12.01	17.13	5.98	6.90	11.26	4.51	12.32
5ES05H2GR	16.10	12.01	19.78	7.28	8.20	12.56	4.51	12.32
5ES10H2GR	16.10	12.01	19.78	7.28	8.20	12.56	4.51	12.32
5ES15H3GR	16.10	12.01	24.78	12.28	13.20	17.56	4.51	12.32
5ES15H5GR	16.10	12.01	24.78	12.28	13.20	17.56	4.51	12.32



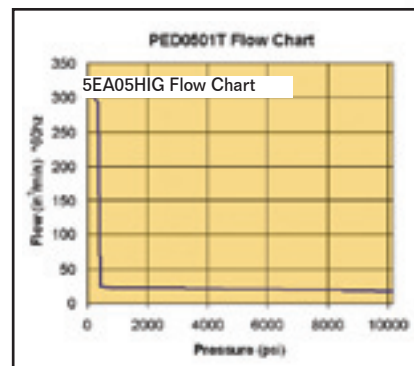
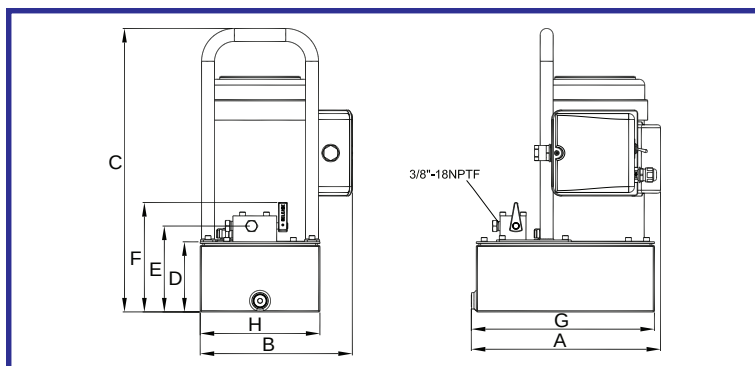
Electric Pump With Auto Return Valve

- Quiet operation meets OSHA regulations (80dBA).
- Best suited for punching, crimping and cutting applications.
- 2 speed operation allows for faster cylinder advance.
- Full load starting capabilities.
- Internal filter keeps contamination from damaging pump.
- Rugged durable design meets the demands of industrial applications.
- 10 ft. remote pendant switch to control motor on/off.



5EA05HIG

ELECTRIC PUMP



ELECTRIC PUMP WITH AUTO RETURN VALVE SPECIFICATIONS

Motor Size	Usable Oil Capacity	Product Code	Pressure Rating		Oil Output Flow Rate		Valve Type	Valve Function	Current Draw	Motor Voltage	Sound Level	Weight
			1st Stage	2nd Stage	1st Stage	2nd Stage						
[hp]	[gal]		[psi]		[in ³ /min]				[amps]	[volts]	[dBA]	[lbs]
0.5	1.0	5EA05HIG	350	10,000	233	18	2-way, 2-position	*Advance/Return	9	115	80	66.2

* Holds pressure in advance position when motor is off.

ELECTRIC PUMP WITH AUTO RETURN VALVE DIMENSIONS

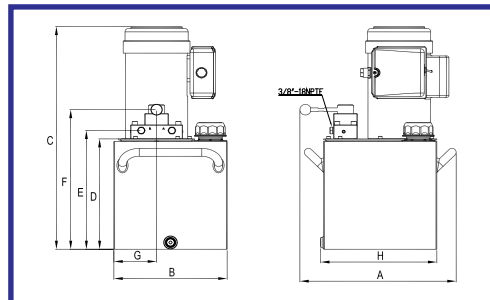
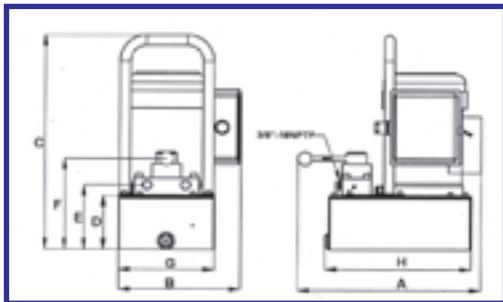
Product Code	Dimensions [in]						
	A	B	C	D	E	F	G
5EA05HIG	12.76	10.28	19.09	4.72	5.79	7.36	12.36

Electric Pumps With Pendant Switch

- Quiet operation meets OSHA regulations (80dBA).
- 2 speed operation allows for faster cylinder advance.
- Full load starting capacities.
- Internal filter keeps contamination from damaging pump.
- 10 foot hand held remote control allows user to control cylinder in up or down position.



5E15H3GR



ELECTRIC PUMP WITH SOLENOID VALVE SPECIFICATIONS

Used with Cylinder	Motor Size	Usable Oil Capacity	Product Code	Pressure Rating		Oil Output Flow Rate		Valve Type	Valve Function	Current Draw	Motor Voltage	Weight
	[hp]	[gal]		1st Stage [psi]	2nd Stage [psi]	1st Stage [in³/min]	2nd Stage [in³/min]			[amps]	[volts]	[lbs]
Single Acting	0.5	1.0	5E05H1GR	350	10,000	293	18	3-way, 3-position	Advance/ Hold/ Return	9	115	59.5
	1.0	2.0	5E10H2GR	700		397	37			12		70.5
	1.5	3.0	5E15H3GR			476	61			17		88.5

ELECTRIC PUMP WITH SOLENOID VALVE DIMENSIONS

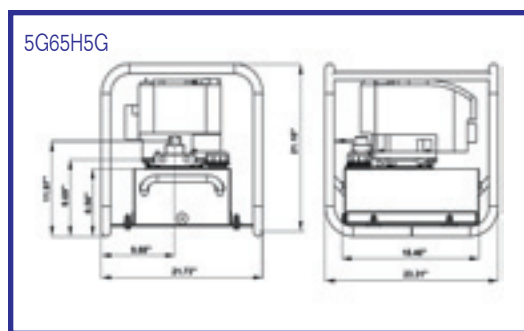
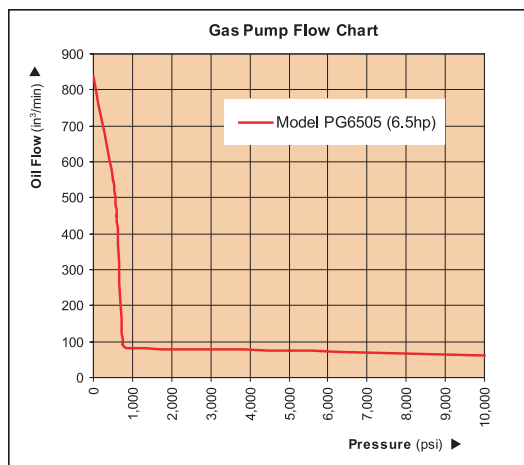
Product Code	Dimensions [in]							
	A	B	C	D	E	F	G	H
5E05H1GR	14.92	10.28	19.10	4.72	5.67	7.99	8.07	12.36
5E10H2GR	16.65	12.01	17.83	5.94	6.89	9.21	4.53	12.36
5E15H3GR	16.65	12.01	19.72	7.24	8.19	10.51	4.53	12.36

Gas Engine Pump

- Gas pump will provide 10,000 psi hydraulic force at remote locations.
- Industrial grade 5.5 hp Honda gas engine.
- Manual control valve for use with single or double acting cylinders or tools.
- Two speed pump designed for rapid cylinder advance.
- Gas pump features a sturdy protective roll cage for use in the toughest environments.

**PULLERS & INDUSTRIAL
HYDRAULICS**

**ELECTRIC MOTOR
& ENGINE PUMP**



5G65H5G

ENGINE PUMP SPECIFICATIONS

Motor Size	Usable Oil Capacity	Product Code	Pressure Rating		Oil Output Flow Rate		Valve Type	Valve Function	Rotation Speed	Sound Level
			[psi]		[in³]				[rpm]	[dBA]
	[hp]		[gal]	1st Stage	2nd Stage	1st Stage			2nd Stage	
5.5	5.0	5G65H5G	580	10,000	610	67	Manual	4-way, 3-position	3600	95

Pump & Cylinder Combos

- Matched sets provide a combination of components for single acting.
- cylinder applications. Ordering is as easy as 1, 2, 3.
 1. Select the cylinder you want
 2. Select the pump you want
 3. Choose the set number



1HP25T06

PUMP & CYLINDER COMBINATIONS

Type	Combo Capacity	Cylinder			Combo Model Number					
		Product Code	Stroke	Collapsed Height	with Hand Pump			with Air Pump		
	[tons]		[in]	[in]	5HS2S35	5HS2S100	5HS2S200	5AS150	5AS150L	5AS380
Single Acting Cylinders	5	6C05T05	5.08	8.70	1HP05T05					
	10	6C10T02	2.01	4.84		1HP10T02		1AP10T02		
		6C10T06	5.94	9.84		1HP10T06		1AP10T06	1AP10T06L	
		6C10T10	9.96	13.86		1HP10T10		1AP10T10	1AP10T10L	
		6CT10T06	5.95	11.46		1HP10T06T		1AP10T06T	1AP10T06TL	
		6CT10T10	9.96	15.47		1HP10T10T		1AP10T10T	1AP10T10TL	
	15	6C15T04	3.86	8.66		1HP15T04		1AP15T04		
		6C15T06	5.87	10.67		1HP15T06		1AP15T06		
	25	6C25T02	2.01	6.82		1HP25T02		1AP25T02		
		6C25T04	3.94	8.78		1HP25T04		1AP25T04		
		6C25T06	5.94	10.79		1HP25T06		1AP25T06		
		6C25T08	7.95	12.80			1HP25T08	1AP25T08		
	55	6C55T06	6.25	11.13			1HP55T06	1AP55T06		
	100	6C100T06	6.63	13.25						1AP100T06
Single Acting Low Profile Cylinder	10	6CL10T01	1.50	3.48	1HP10T01L			1AP10T01L		
	20	6CL20T02	1.75	3.90	1HP20T02L			1AP20T02L		
	30	6CL30T02	2.44	4.61		1HP30T02L		1AP30T02L		

Set includes cylinder, pump, 6-foot hydraulic hose, high flow coupler and fitting. Some kits include a 2 1/2" gauge.



AIR PUMP AND SINGLE-ACTING CYLINDER MATCHING CHART

Capacity [Tons] > Stroke [Inches] √	5	10	15	25	30	55	75	100
<1.00								
1.00								
2.00								
3.00								
4.00								
5.00								
6.00								
7.00								
8.00								
9.00								
10.00								
12.00								
13.00								
14.00								
	 5AS60	 5AS150			 5AS380			

Note: Selection based on oil capacity requirements of cylinders.

Not Recommended

PULLERS & INDUSTRIAL
HYDRAULICS

PUMP & CYLINDER
COMBOS & CHARTS

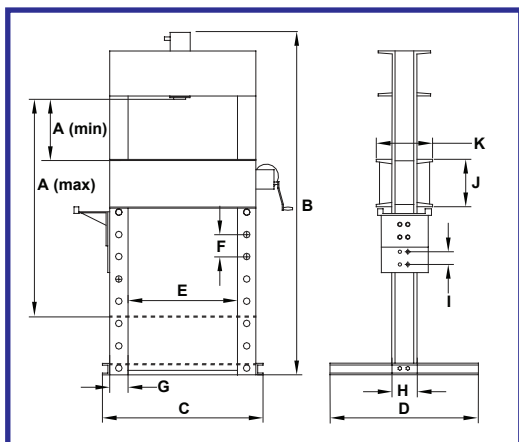
HAND PUMP / E-PUMP AND SINGLE-ACTING CYLINDER MATCHING CHART

Capacity [Tons] > Stroke [Inches] √	5	10	15	25	30	55	75	100
<1.00								
1.00								
2.00								
3.00								
4.00								
5.00								
6.00								
7.00								
8.00								
9.00								
10.00								
12.00								
13.00								
14.00								
	 5HS2S35	 5HS2S100	 5HS2S200	 5E10H2G				

Note: Selection based on oil capacity requirements of cylinders.

55/100 Ton Shop Press

- Heavy steel welded construction.
- Multi-position bed for work height adjustment.
- Ideal for the removal or installation of gears, universal joints, pulleys, wrist pins, and other press jobs.
- Excellent for bending, bonding or straightening applications.



55/100 TON SHOP PRESS SPECIFICATIONS

Product Code	Capacity [Tons]	Pump Model	Pump Type	Stroke Length	Bed Position	Product Size [H X L X W]	Working Space [A Min. / A Max.] [in]	Weight [lbs]
9A55T06	55	5AS150	AIR	6	9	79" X 56" X 30"	14" ~ 55-1/2"	760
9E55T06		5E05H1GR	ELECTRIC	6				
9H55T06		5HS25200	MANUAL	6				
9A55T13		5AS380	AIR	13				
9E55T13		5E05H1GR	ELECTRIC	13				
9E100T10	100	5E10H2GR	ELECTRIC	10	8	89" X 63" X 30"	11-1/4" ~ 51"	1550

55/100 TON SHOP PRESS DIMENSIONS

Product Code	Dimensions [in]											
	A [Min.]	A [Max.]	B	C	D	E	F	G	H	I	J	K
9A55T06	14	55.5	79	56	30	35.4	6	4	9	3	10	14.8
9E55T06												
9H55T06												
9A55T13												
9E55T13												
9E100T10	11.3	51	89	63	30	35.5	8	N/A	10	N/A	12	16

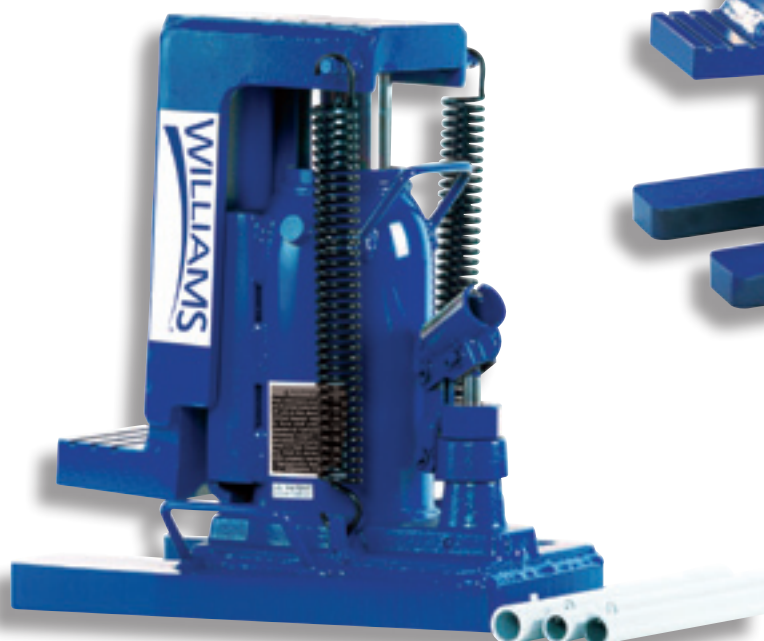


Toe Jacks

- Heat treated and chrome plated medium-carbon steel cylinder.
- Chrome plated ram promotes longer seal life and optimum performance.
- U.S. Patented by-pass device protects hydraulic system from over traveling damage.

PULLERS & INDUSTRIAL HYDRAULICS

TOE JACKS & PRESS



4T10T



4T06T

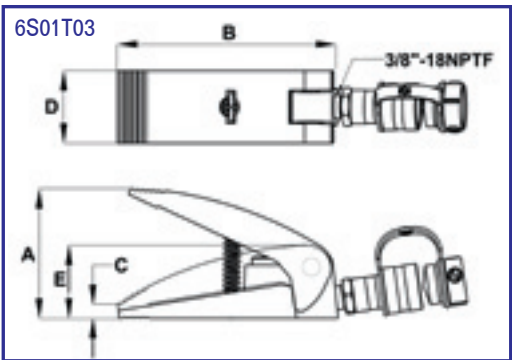
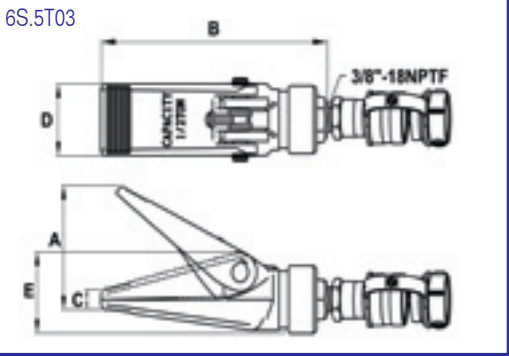
TOE JACK DIMENSIONS

Capacity	Product Code	Toe Saddle		Head Saddle		Hydraulic Lifting
		Min. Height	Max. Height	Min. Height	Max. Height	
[tons]		[in]	[in]	[in]	[in]	[in]
6	4T06T	0.88	6.00	10.50	15.63	5.13
10	4T10T	1.13	6.25	11.00	16.13	

Spreaders



6S.5T03



6S01T03

SPREADER DIMENSIONS

Cylinder Capacity	Product Code	Cylinder Effective Area	Oil Capacity	Dimensions [in]				
[tons]		[in ²]	[in ³]	A	B	C	D	E
0.5	6S05T03	1.22	0.58	3.54	7.57	0.51	2.05	2.36
1	6S01T03	1.09	0.86	3.90	6.57	0.47	2.17	2.20



Orbital Pump Bottle Jacks

- Textured, heat treated saddle provides lifting area with secure grip.
- Heat treated extension screw allows height adjustment and maximum lift height.
- U.S. patented by-pass device protects hydraulic system from over traveling damage.
- Industrial hard chrome plated ram prevents scratching and corrosion.
- A wide, rugged base provides stability and strength.
- Critical stress points are reinforced in all models for added durability and dependability.
- Fully serviceable design.

PULLERS & INDUSTRIAL HYDRAULICS

ORBITAL PUMP & SPREADERS



3T20T



3S12T



3T12T

ORBITAL PUMP BOTTLE JACK DIMENSIONS

Capacity	Product Code	Min. Height	Max. Height	Extension Screw	Hydraulic Lifting	Base Size [L x W]
[tons]		[in]	[in]	[in]	[in]	[in]
12	3T12T	9.50	18.63	3.13	6.00	7.50 x 4.63
	3S12T	6.13	10.63	1.63	3.00	
20	3T20T	9.63	18.75	3.88	5.13	7.50 x 5.38
	3S20T	6.50	11.25	2.00	2.75	

Side Pump Bottle Jack

- Hydraulic system is protected from internal damage by a patented by-pass mechanism.
- Machined and polished cylinders with die-cut threads provide non-abrasive leak-free, durable performance.
- Fabricated from hard-cast steel with heat-treated critical stress areas.
- Serrated heat-treated saddle provides generous lifting area and secure grip.
- Heat-treated extension screw allows low pick-up height adjustment and maximum lift height.
- U.S. patented built-in by-pass device protects hydraulic system from overpumping damage.
- Unique cross-type forged release valve assures positive control.
- A wide, rugged base provides stability and strength.
- Critical stress points are reinforced in all models for added durability and dependability.
- Economically priced for maximum value.



3S20TV

SIDE PUMP BOTTLE JACK DIMENSIONS

Capacity	Product Code	Min. Height	Max. Height	Extension Screw	Hydraulic Lifting	Base Size (L x W)
[tons]		[in]	[in]	[in]	[in]	[in]
12	3T12TV	9.50	18.63	3.13	6.00	5.25 x 5.13
	3S12TV	6.00	10.63	1.63	3.00	
20	3T20TV	9.50	18.63	3.13	6.00	6.25 x 5.88
	3S20TV	6.50	11.25	1.63	3.13	



Maintenance Kits

- Sets are portable for easy use in the plant or on the job site.
- Custom fitted, rugged blow molded storage case.
- 10 ton set has wheels for easy movement.
- Designed for applications of pushing, spreading, pressing and more.
- Pumps are rated from 8,000 to 10,000 psi.

4M10T

PULLERS & INDUSTRIAL HYDRAULICS

MAINTENANCE KITS & SIDE PUMP



MAINTENANCE KITS

Contents of Kit	Product Code	
	4M04T	4M10T
Hand Pump	X	X
Ram	X	X
Hose Assembly	X	X
Hose Coupler	X	X
Ram Coupler	X	X
Case	X	X
Hydraulic Spreader	X	X
Combination Head (90°)	X	X
Rubber Head	X	X
Ram Toe	X	X
Plunger Toe	X	X
Flat Base	X	X
Serrated Saddle	X	X
Wedge Head	X	X
Male Connector	X	X
Extension Tubes Included	3"	4"
	6 1/8 "	10"
	8 1/2 "	18"
	16 1/2 "	27"
	19 1/2 "	

Capacity [tons]	Product Code	Ram		Number of Attachments
		Collapsed Height [in ²]	Extended Height [in ²]	
4	4M04T	11.00	15.75	14
10	4M10T	13.63	19.75	13

*When extension tubes and/or offset attachments are used, the capacity is reduced.

Gauges, Adapters, Hoses & Hydraulic Oil



8G025W



8G04W



8H3825D06



8H2525D06



8H3838D06

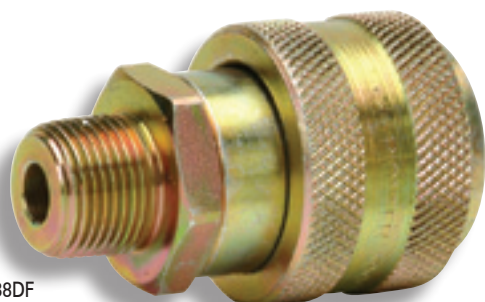
HOSE SPECIFICATIONS

Hose I.D. [in]	Product Code	Hose End Fittings	Operating Pressure [psi]	Hose Length [ft]	Weight [lbs]
1/4"	8H2525D06	1/4"-18NPTF	10,000	6	2.5
	8H3825D06	3/8"-18NPTF		6	3.0
	8H3838D006	3/8"-18NPTF		6	3.5

GAUGE SPECIFICATIONS

Gauge Type	Product Code	Face Dia.	Thread	Pressure Range		Graduation			
		[in]	[in]	[psi]	[bar]	Major Graduation	Minor Graduation	Major Graduation	Minor Graduation
						[psi]		[bar]	
Wet	8G05W	2.50	1/4"-18NPTF	0-10,000	0-700	1,000	100	100	10
	8G04W	4.00				2,000	200		

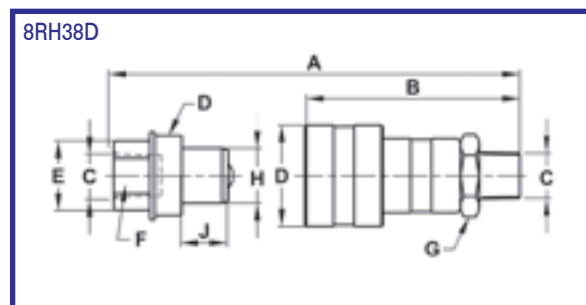




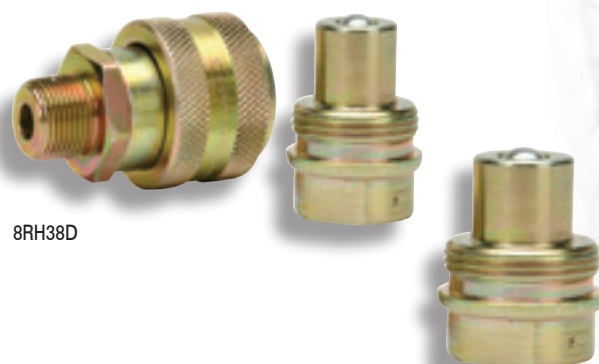
8RH38DF



8R38D

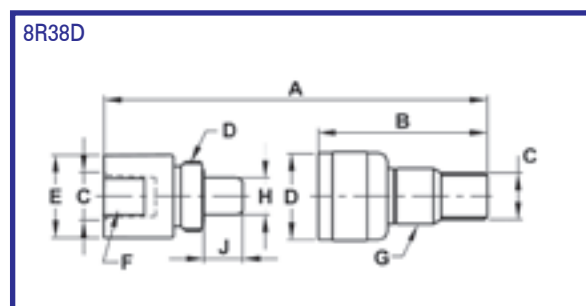


8RH38D



8RH38D

8RH38DM



8R38D



8R38DM



8R38DF

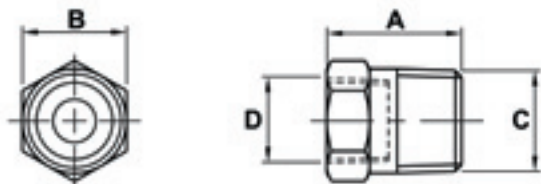
COUPLER DIMENSIONS

Coupler Type	Product code			Dimensions [in]				
	Complete Set	Male Half	Female Half	A*	B	C	D	E
High-Flow Coupler	8RH38D	8RH38DM	8RH38DF	3.35	2.84	3/8"-18NPTF	1 3/16"-16	1.10
Regular-Flow Coupler	8R38D	8R38DM	8R38DF	3.15	2.2	3/8"-18NPTF	15/16"-20	1.04

* Value A is total length when male and female valves are connected.

Empalmes

8FR25F38M

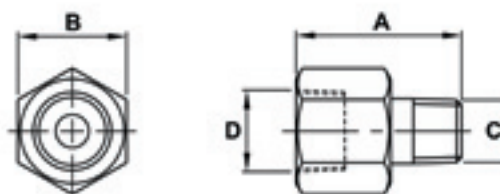


8FB25F38M

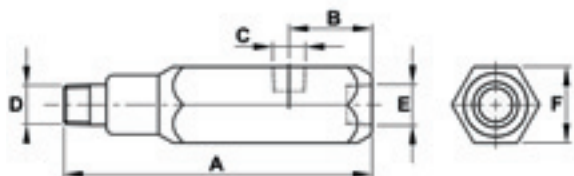


8FR38M25F

8FR38M25F



8FG38MF



8FG38MF

ADAPTER SPECIFICATIONS

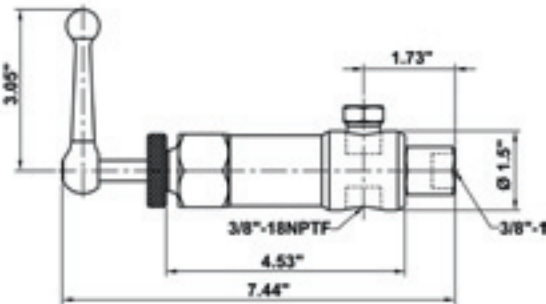
Description	Product Code	Male Thread	Female Thread	Dimensions [in]	
		C	D	A	B
Adapter	8FR38M25F	1/4"-18NPTF	3/8"-18NPTF	1.39	0.91
Bushing	8FB25F38M	3/8"-18NPTF	1/4"-18NPTF	0.87	0.67

GAUGE ADAPTER SPECIFICATIONS

Product Code	Dimensions [in]					
	A	B	C	D	E	F
8FG38MF	5.12	1.38	1/4"-18NPTF	3/8"-18NPTF	3/8"-18NPTF	1.25

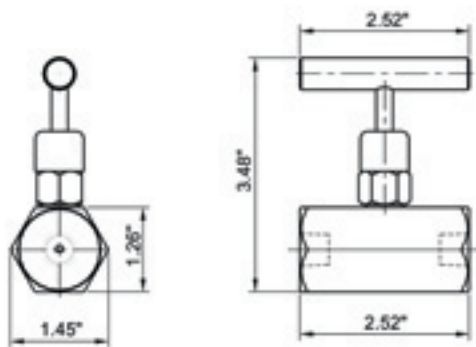


8V38R



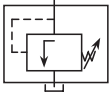
8V38R

8V38N



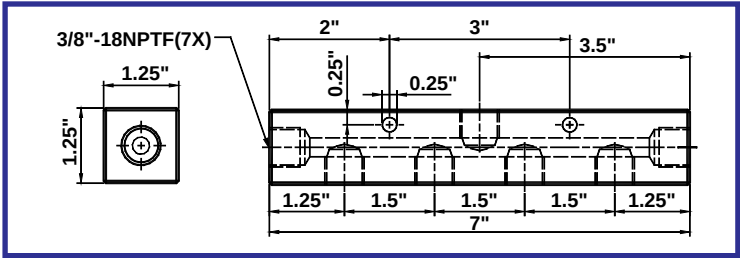
8V38N

VALVE SPECIFICATIONS

Valve Type	Product Code	Ports	Application	Hydraulic Symbol
Needle Valve	8V38N	3/8"-18NPTF	Controls cylinder speed and treats as temporary shut-off valve for load holding.	
Pressure Relief Valve	8V38R	3/8"-18NPTF	Controls pressure developed by the pump in hydraulic loop. By-pass occurred when pre-set pressured is reached. Turns clockwise to increase pressure, counter clock-wise to decrease.	



8M7L7P



Manifold Type	Product Code	Number of Parts	Port Size	Mounting Hole
7" Long Manifold	8M7L7P	7	3/8" - 18NPTF	1/4" - 20UNC
14" Long Manifold	8M14L7P	7		

