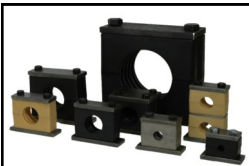


SIB

PACKING HOUSE — EQUIPMENT —

BEEF PLANT MRO CATALOG

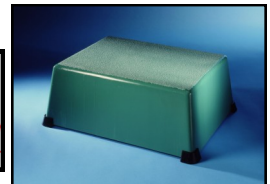
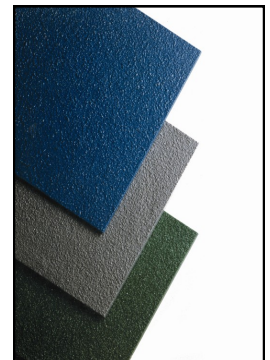


Fibergrate
Composite Structures

YUKEN



*milwaukee
Cylinder*



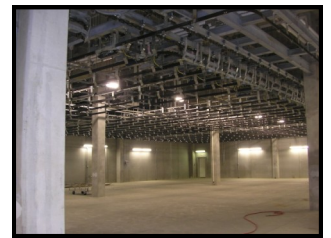
www.sbparking.com

970-304-8388

www.sbparking.com

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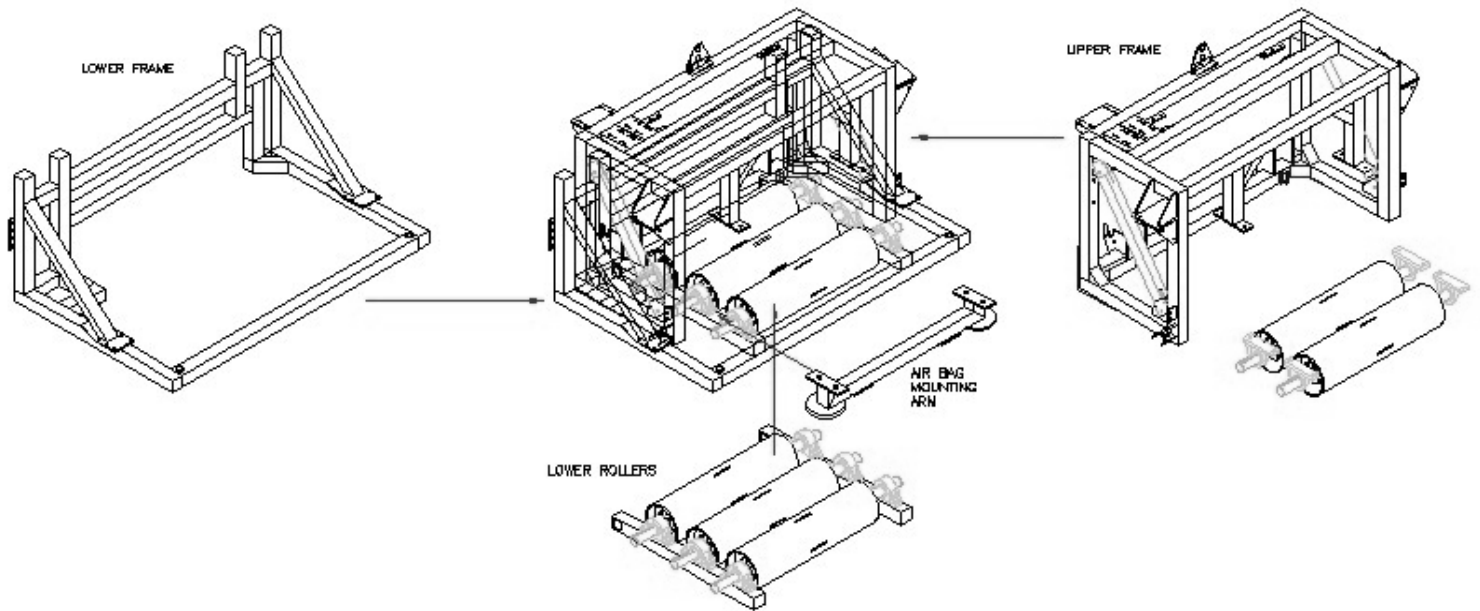
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SECTION I

AUTOMATIC HIDE PULLER

Exploded View



Available Literature

Autopuller Manual (Bottom Airbag Style)

Autopuller Manual (Top Airbag Style)

Bottom Airbag Retrofit Instructions

Two Pressure Control Option Information

Automatic Downpuller PM

Drive Testing kit Instructions

Hydraulic Pump Test Kit Instructions

Automatic Hide Puller Rebuild Kits and Wear Parts

Upper and Lower Arm Rebuild Kit

Our PN# 110005

MINO 11415X00078

Consists of: 12 ea arm bushings, 2 ea lower arm pins, 2 ea lower arm pin retainers, 4 ea upper arm pins, 2 ea upper arm adjustment pivot pins, 2 ea upper arm adjusting pins, 4 ea shackles, 4 ea thrust washers

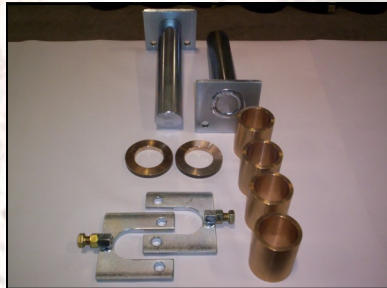


Lower Roller Arm Rebuild Kit

Our PN# 110004

MINO 11415X00076

Consists of 2 ea lower arm pins, 4 ea thrust washers, 2 ea lower arm pin retainers, 4 ea lower arm bushings



Upper Roller Arm Rebuild Kit

Our PN# 110007

MINO 11415X00078

Consists of 4 ea upper arm pins, 8 ea upper arm bushings, 2 ea upper arm adjustment pivot pins, 2 ea upper arm adjusting pins.



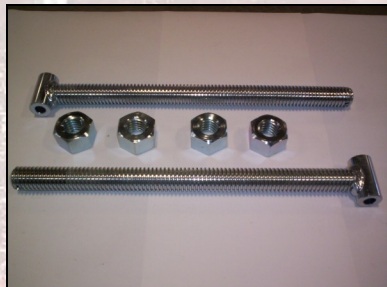
Rod, Upper Roller Adjusting

(set of 2)

Our PN# 180008

MINO 11415X00119

Consists of 2 ea adjusting rods, 4 ea acme nuts, associated hardware



Pin, Upper Roller Adj, Outer

(set of 4)

PN#160011

MINO 11415X00108

Consists of 4 ea upper roller adjusting pins with associated hardware



Pin, Upper Roller Adj, Center

(Set of 2)

PN#160010

MINO 11415X00107

Consists of 2 ea Upper Roller Adjusting Pins



Shackle, Top Roller Adjusting

(set of 4)

PN#190001

MINO 11415X00122

Consists of 4 ea Shackle,



Retainer, Lower Roller Pin

(Set of 2)

PN#160009

MINO 11415X00106

Consists of 2 ea Lower Roller Pin Retainer and associated Hardware



Pin, Pivot, Bottom Roller Mount

(Set of 2)

PN#160013

MINO 11415X00109

Consists of 2 ea Lower Roller Mount Pins and associated Hardware



LWR Roller Pivot Pin Thrust Washer

(Set of 4)

PN#20010

MINO 11415X00022

Consists of 4 ea Thrust Washers



Automatic Hide Puller Rebuild Kits and Wear Parts

Bushing Roller Arm

(Set of 2)

PN#20008

MINO 11415X00020

Consists of 2 ea Roller Arm Bushings (12 required per machine)



Frame Pivot Pillow Block Bearing

(Set of 2)

PN#160004

MINO 11415X00101

Consists of 2 ea Frame Pivot Pillow Block Bearing and Associated Hardware



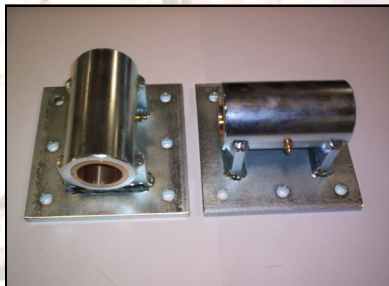
Mount, Upper Roller Arm Pivot

(Set of 2)

PN#130002

MINO 11415X00087

Consists of 2 ea Upper Roller Arm Pivot Mounts, 2 ea Roller Arm Bushings Installed, Associated Hardware



Cylinder & Mount Rebuild Kit

PN#80007

MINO 11415X00038

Consists of 2 ea Hydraulic Cylinders, 2 ea Lower Cyl Mounts, 2 ea Upper cyl mount bushings



Kit, Inner Frame Pivot Rebuild

PN#110003

MINO 11415X00075

Consists of 2 ea Machine Pivot Bearings, 2 ea Frame Pivot Pins, 2 ea Frame Pivot Spacers, Assoc Hardware



Hydraulic Cylinder and Clevis Assy

PN#80005

MINO 11415X00036

Consists of Hydraulic Cyl and Clevis, Pins, Associated Hardware (Replace in sets of 2)



Frame Pivot Spacer

(Set of 2)

PN#20014

MINO 11415X00025

Consists of 2 ea Frame Pivot Spacers



Hydraulic Cylinder Clevis & Pin Assy

PN#80006

MINO 11415X00037

Consists of Clevis, Pin, associated hardware



Pin, Frame Pivot

(Set of 2)

PN#160014

MINO 11415X00110

Consists of 2 ea Frame Pivot Pins and Associated Hardware



Lower Cylinder Clevis Pin

(Set of 2)

PN#80016

MINO 11415X00

Consists of 2 ea Lower Cylinder Clevis Pin and Associated Hardware



Automatic Hide Puller Rebuild Kits and Wear Parts

Upper Cylinder Clevis Pin

(Set of 2)

PN#80024

MINO 11415X00055

Consists of 2 ea Upper

Cylinder Clevis Pins & Associated Hardware



Kit, Cylinder Rebuild, Autopuller

PN#110013

MINO 11415X00084

Consists of Rod gland, Rod Gland Seals, Piston Seals



Bushing, Lower Cylinder Mount

(Set of 2)

PN#20007

MINO 11415X00019

Consists of 2 ea Lower

Cylinder Mount Bushings



Mounting side plate, rear lower roller

PN#130010

Consists of 2 ea plates (2 sets required per machine)



Bushing, Upper Cylinder Mount

(Set of 2)

PN#20009

MINO 11415X00021

Consists of 2 ea Upper Cylinder Mount Bushings



UHMW, Bumper

(Set of 2)

PN#210002

MINO 11415X00

Consists of 2 ea UHMW Bumpers and bolts.



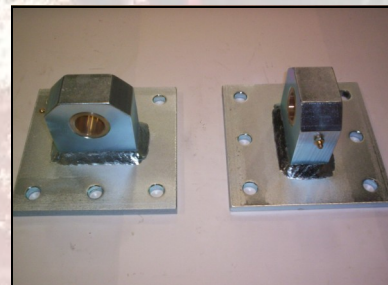
Mount, Lower Cylinder

(Set of 2)

PN#130004

MINO 11415X00089

Consists of 2 ea Lower cylinder mounts, bushings, associated hardware



Bumper, Frame

(Set of 2)

PN#20011

MINO 11415X00

Consists of 2 ea assembled frame bumpers and associated hardware.



Mount, Upper Cylinder, Bolt on

PN#130008

MINO 11415X00093

Consists of 2 ea Upper Cylinder Bolt on Mounts, Bushings, Associated Hardware

N



Wear Strip, Airbag Guide

(set of 2)

PN#230002

MINO 11415X000135

Consists of 2 ea wear strips (2 sets required per machine) (for top airbag style machines)



Automatic Hide Puller Drive Components

Belt, Bottom Hide Puller

PN#20005

MINO 11415X00017

Consists of Bottom Belt, Pin



QD Bushing, Upper & Lower Roller

PN#20012

MINO 11415X00024

Consists of 1 ea Roller QD Bushing and associated hardware



Belt, Top Hide Puller

PN#20006

MINO 11415X00018

Consists of Top Belt, Pin



Gearbox, Autopuller

PN#70002

MINO 11415X00031

All gearboxes now have extra mounting holes for hydraulic motor 90 degrees offset



Roller, Autopuller, Bottom

PN#180003

MINO 11415X00114

Consists of Bottom Roller, 2 ea QD Bushings



Heavy Duty Gearbox Mount Plate

PN#130006

MINO 11415X00091

Consists of Heavy Duty Gearbox Mount and associated hardware



Roller, Autopuller, Top, No Groove

PN#180004

MINO 11415X00115

Consists of Top Roller, 2 ea QD Bushings (ONLY FOR PLANTS NOT RUNNING TOP BELT)



Autopuller Hydraulic Motor

PN#80017

MINO 11415X00048

Consists of Hydraulic Motor



Roller, Autopuller Top, Grooved

PN#180002

MINO 11415X00113

Consists of Top Roller, 2 ea QD Bushings



Key Stock, Shaft to QD

PN#110001

MINO 11415X00073

Consists of 2 Keyways for QD to shaft. (2 req per shaft) (10 required per machine)



(Set of 2)

Automatic Hide Puller Drive Components

Key stock, Gearbox to Shaft

PN#110002

MINO 11415X00074

Consists of 1 ea Key stock for Gearbox to Shaft (1 required per drive roller)



Assy, Lower Idler Roller

PN#10007

MINO 11415X000007

Consists of Roller, Drive Shaft, QD Bushings, Keystock, Bearings

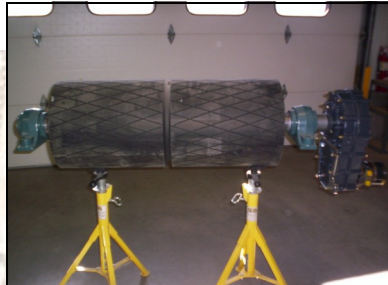


Assy, Upper Rear Drive Roller

PN#10003

MINO 11415X000003

Consists of Roller, Drive Shaft, QD Bushings, Key stock, Gearbox, Gearbox Mount, Hydraulic Motor, Bearings

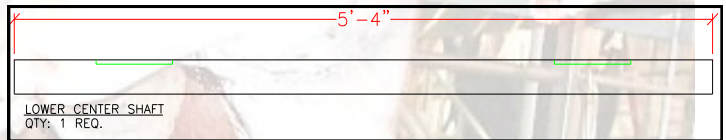


Shaft, Idler Lower Center 64"

PN#190002

MINO 11415X00123

Consists of Shaft, Keyways



Assy, Upper Front Drive Roller

PN#10004

MINO 11415X000004

Consists of Roller, Drive Shaft, QD Bushings, Key stock, Gearbox, Gearbox Mount, Hydraulic Motor, Bearings

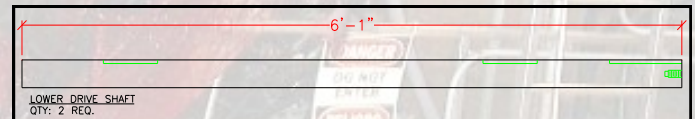


Shaft, Lower Drive Roller 73"

PN#190003

MINO 11415X00124

Consists of Shaft, Keyway



Assy, Lower Rear Drive Roller

PN#10005

MINO 11415X000005

Consists of Roller, Drive Shaft, QD Bushings, Key stock, Gearbox, Gearbox Mount, Hydraulic Motor, Bearings

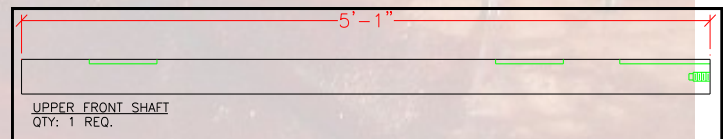


Shaft, Upper Front Drive Roller 61"

PN#190004

MINO 11415X00125

Consists of Shaft, Keyways



Assy, Lower Front Drive Roller

PN#10006

MINO 11415X000006

Consists of Roller, Drive Shaft, QD Bushings, Key stock, Gearbox, Gearbox Mount, Hydraulic Motor, Bearings

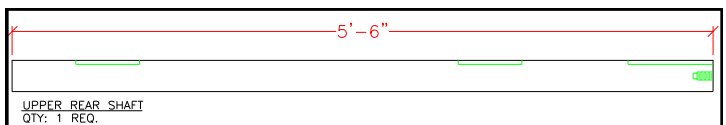


Shaft Upper Rear Drive Roller, 66"

PN#190005

MINO 11415X00126

Consists of Shaft, Keyways



Automatic Hide Puller Hydraulic Components

Water Cooler, Autopuller Power Unit

PN#80000

MINO 11415X00033

Consists of Water Cooler

With Stainless Tubes



Valve, Automatic Water

PN#220002

MINO 11415X00133

Consists of Water Valve and Bulbwell for Water Cooler



Hydraulic Pump, Automatic Hidepuller

PN#80021

MINO 11415X00052

Consists of Hydraulic Pump

(Can install two pressure control on pump for additional cost)



Hydraulic 2 Pressure Control

PN#80023

MINO 11415X00054

Consists of Two pressure assy. Coil, Valve, Bolt kit, o-rings.

Can be installed on pump on request



Hydraulic 2nd Stage Compensator

PN#80003

MINO 11415X00034

Consists of Hydraulic 2nd Stage Compensator, Bolt Kit, O-rings



Hydraulic Pump Check Valve

PN#80045

MINO 11415X00069

Consists of Pump Check Valve and o-ring



Hydraulic Pump Relief Valve

PN#220003

Consists of Flanged Relief Valve, Relief Cartridge, O-ring



Return Filter Bypass Gauge

PN#80051

MINO 11415X00

Consists of Liquid filled return filter bypass gauge



Hydraulic Tank Desiccant Breather

PN#80048

MINO 11415X00070

Consists of New style Desiccant Breather with integrated Check Valve for Longer Life



Coil, Two Pressure Control

PN#80062

MINO 11415X00

Consists of Coil Assy



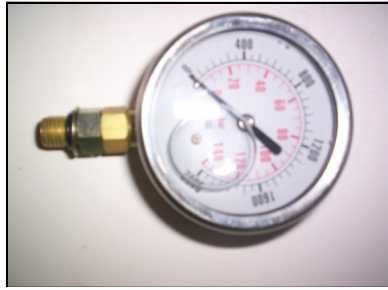
Automatic Hide Puller Hydraulic Components

O-ring Ported 0-2000 PSI Gauge

PN#80013

MINO 11415X00044

Consists of #4 SAE Ported gauge 0-2000 PSI



Hydraulic Cylinder and Clevis Assy

PN#80005

MINO 11415X00036

Consists of Hydraulic Cyl and Clevis, Pins, Associated Hardware (**Recommended Replacement in sets of 2**)

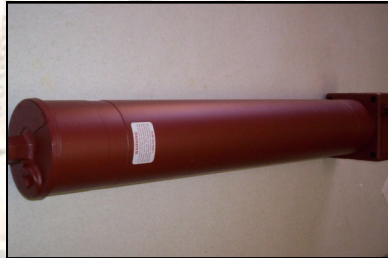


Pressure Filter Assembly

PN#80035

MINO 11415X00066

Consists of Filter housing with 3 ea KZ10 Filters Installed



Hydraulic Cylinder Clevis & Pin Assy

PN#80006

MINO 11415X00037

Consists of Clevis, Pin, associated hardware



Pressure Filter Element KZ10

PN#80020

MINO 11415X00051

Consists of One ea KZ10 Filter Element and associated seals



Lower Cylinder Clevis Pin

(Set of 2)

PN#80016

MINO 11415X00

Consists of 2 ea Lower Cylinder Clevis Pin and Associated Hardware



Recirculating Element BBZ3

PN#60003

MINO 11415X00027

Consists of One ea BBZ3 Filter Element and associated seals



Upper Cylinder Clevis Pin

(Set of 2)

PN#80024

MINO 11415X00055

Consists of 2 ea Upper Cylinder Clevis Pins & Associated Hardware



Return Filter Element BBZ10

PN#80022

MINO 11415X00053

Consists of One ea BBZ10 Filter Element and associated Seals



Autopuller Hydraulic Valve Assy

PN#80054

Consists of Manifold, Cylinder Valve, Motor Valve, Bolts, Assembly



Automatic Hide Puller Hydraulic Components

Manifold, Hydraulic Valve

PN#80025

MINO 11415X00056

Consists of Autopuller Valve Manifold and associated Hardware



Header, Cylinder

PN#80034

MINO 11415X00065

Consists of 1 ea cylinder header. 2 required per machine.

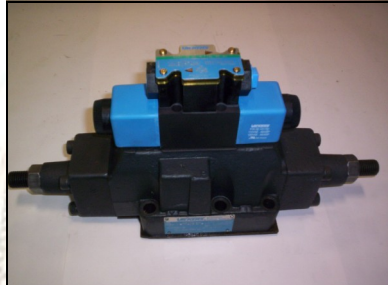


Motor Valve, Autopuller

PN#80018

MINO 11415X00049

Consists of High Flow Motor valve, Volume Stops



Header, Return

PN#80033

MINO 11415X00064

Consists of 1 ea Motor Return header and associated hardware.

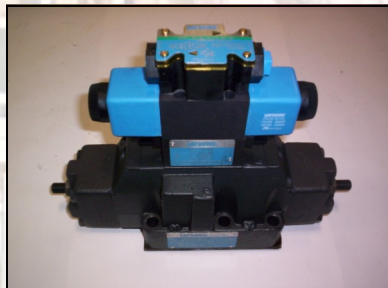


Cylinder Valve, Autopuller

PN#80009

MINO 11415X00040

Consists of Cylinder valve, Volume Stops, Pilot Choke

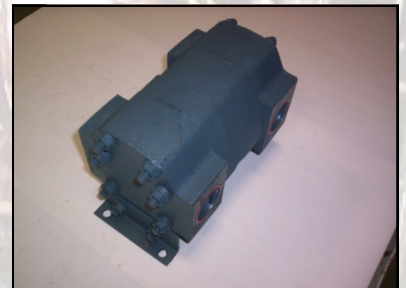


Flow Divider, Large

PN#80011

MINO 11415X00042

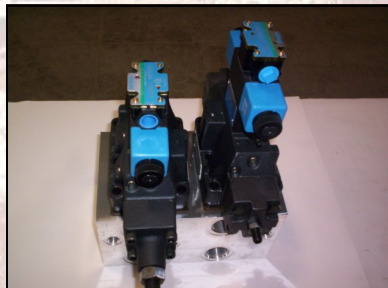
Consists of 1 ea large flow divider and associated hardware.



Autopuller Hydraulic Valve Assembly

PN#80054

Consists of Manifold, Cyl Valve, Motor Valve, Assembly Labor, and associated hardware



Flow Divider, Small

PN#80012

MINO 11415X00043

Consists of 1 ea small flow divider and associated hardware. 2 required per machine.



Fitting Kit

PN#80010

MINO 11415X00041

Consists of Hydraulic and Pneumatic Fittings for Autopuller



Coil, Vickers D03

PN#220005

Consists of 1 ea Vickers Coil Flying leads for all current Vickers D03 valves



Automatic Hide Puller Pneumatic Components

Airbag

PN#10001

MINO 11415X00001

Consists of One ea Airbag



Airbag Lifting Rods

PN#180001

MINO 11415X00112

Consists of 2 ea Lifting Rods, associated hardware (For Top Airbag Mounted Machines)



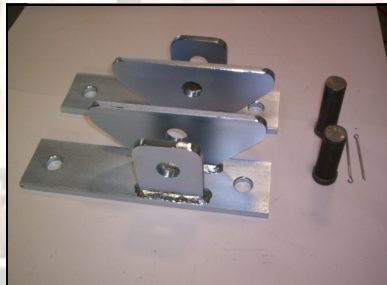
Airbag Mount

(Set of 2)

PN#110009

MINO 11415X00080

Consists of 2 ea Airbag Mounts and associated hardware



Manifold, Airbag

PN#130001

MINO 11415X00086

Consists of Manifold plate and associated hardware



Airbag Mounting Plate

(Set of 2)

PN#210001

MINO 11415X000131

Consists of 2 ea Airbag Mounting plates, bushings, associated hardware



Bushing, Airbag Mounting Plate

PN#20016

Consists of 2 ea bushings for upper airbag mounts.



Valve, Airbag

PN#220001

MINO 11415X000132

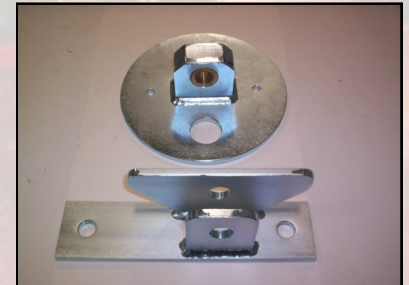
Consists of One ea Airbag Valve Assembly



Kit, Airbag Mounts

PN#110018

Consists of Airbag Mount, Airbag mounting plate, bushings and associated hardware



Airbag Valve Solenoid Assy

PN#190006

MINO 11415X000128

Consists of Solenoid Assy



1-1/4 FILTER, REG, LUB

PN#160020

Consists of 1-1/4 NPT FILTER, REGULATOR, LUBRICATOR, GAUGE



Automatic Hide Puller Roller Arms

Upper Roller arm w/o torque arms

PN#180006

Consists of Upper Roller arm, associated hardware, bushing



Lower Bolt on Airbag Bar

PN#20001

Consists of Lower Airbag Bolt on bar, associated hardware



Upper Roller arms with torque arms

PN#180005

Consists of Upper roller arm, Associate hardware, bushing



Bar, Upper Airbag

PN#20004

Consists of Upper Airbag Bar, Teflon Guides, Hardware



Lower Roller arms w/o torque arms

PN#180011

Consists of Lower Roller Arm, associated hardware, bushing



Bar, Lower Cross Tie

PN#20003

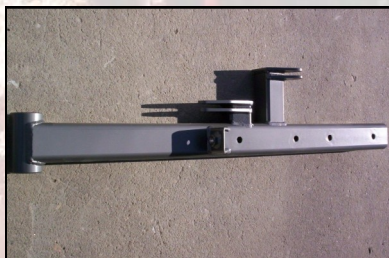
Consists of Lower Cross Tie Bar, Hardware



Lower Roller arm with torque arms

PN#180010

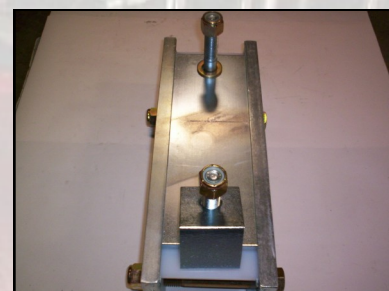
Consists of Lower Roller arm, associated hardware, bushing



Kit, Lower Rear Roller Mount

PN#1100012

Consists of 2 ea side plates, bearing mount plate, Teflon, hardware. (2 required per machine)



Lower Weld on airbag bar

PN#20002

Consists of Lower Weld on Airbag bar, associated hardware, gussets



Automatic Hide Puller Diagnostic Tools and Maintenance Items

Maintenance Pins

PN#160007

Consists of 2 ea Maintenance Pins.



Oil Condition Monitor

PN#280218

Consists of oil condition monitoring system for particulate level, temperature, and water saturation. See section in this catalog for details.



Autopuller PM Tool Kit

PN#200001

Consists of Tools required to do Autopuller PM



Autopuller Drive Test Kit

PN#110010

Consists of 4 ea Test Points, 1 ea Gauge Connection



Pump Efficiency Test Kit

PN#

Consists of 0-100 GPM Flow Meter, Loading Valve, Gauge, 10' hose. (Specify hose connections)



0-10 GPM Flow meter

PN#60005

MINO 11415X00

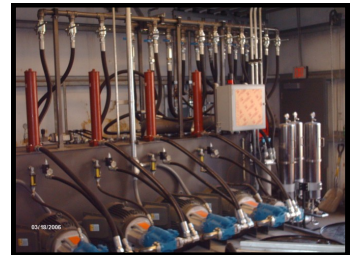
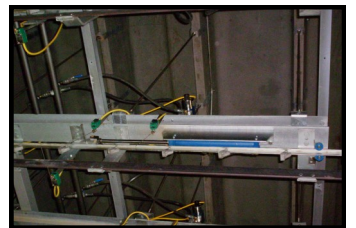
Consists of 1 ea 0-10 GPM Flow Meter 3000 psi.



SB PACKING HOUSE — EQUIPMENT —

HYDRAULIC CAPABILITIES

- Complete systems from conceptual design stage to installation and startup
- Experienced in all beef plant systems including slaughter, fab, walking beams, switches, hydraulic energy audits
- Expert troubleshooting
- Central Hydraulic Systems
- Oil condition Monitoring Systems
- Analysis and improvement of existing systems
- Turnkey packages available including design, fabrication, piping, hosing, valving, plc integration and expert startup



Common Hydraulic formulas

Rules of Thumb

For every 1 HP of drive, the equivalent of 1 GPM @ 1500 psi can be produced.

To idle a pump when it is unloaded will require 5 % of it's full rated HP.

Volume reduction of oil is approximately 1/2% for every 1000 psi of pressure.

Volume reduction of water is about 1/3% for every 1000 psi of pressure.

Flow velocity in hydraulic lines. Pump suction lines 2-4 feet per second. Continuous duty pressure lines is 15-20 feet per second. Intermittent duty pressure lines 20-30 feet per second. Return lines 10-15 feet per second.

Heat removal in HP for hydraulic tanks. 1/3 of operating HP. Example 30 HP electric motor you want to remove 10 HP worth of heat.

1 bar = 14.5 PSI

Force = Pressure X Area

Torque and Horsepower Relations

Torque = HP X 5252 / RPM

HP = Torque X RPM / 5252

RPM = HP X 5252 / Torque

Hydraulic Horsepower (for use when calculating hp of motor for a pump)

Horsepower = Pressure X Gallons Per Minute / 1714

Velocity of Oil flow in pipe

Velocity = Gallons per Minute X .3208 / Area

Circle Formulas

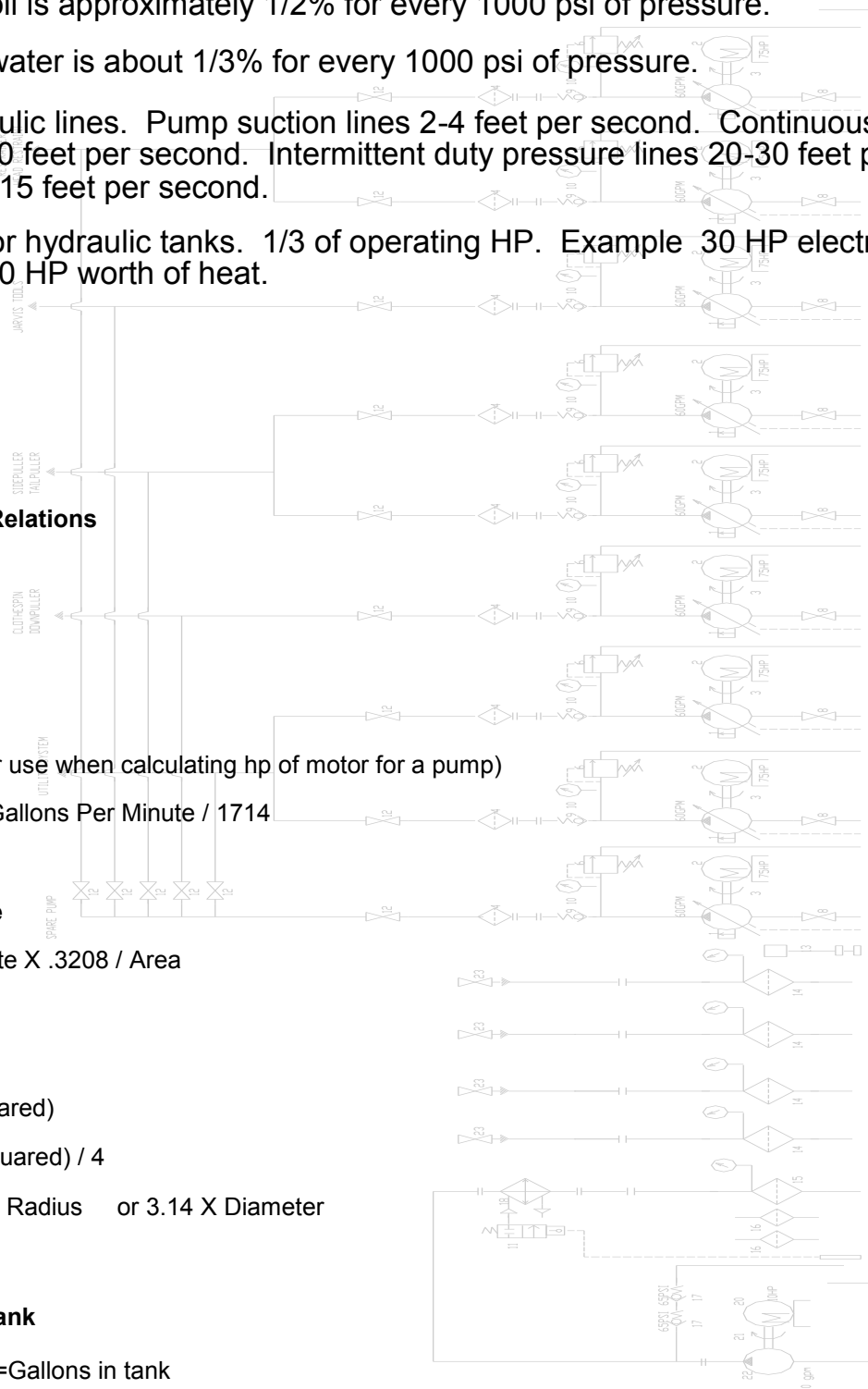
Area = 3.14 X Radius (Squared)

Area = 3.14 X Diameter (Squared) / 4

Circumference = 2 X 3.14 X Radius or 3.14 X Diameter

Calculating gallons in a Tank

L X W X H (in inches) / 231 = Gallons in tank

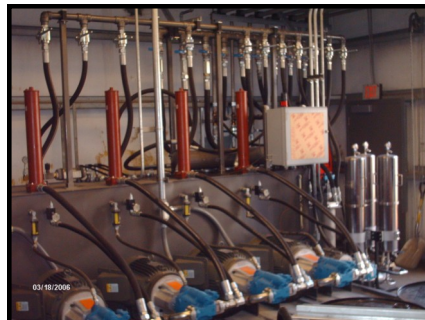
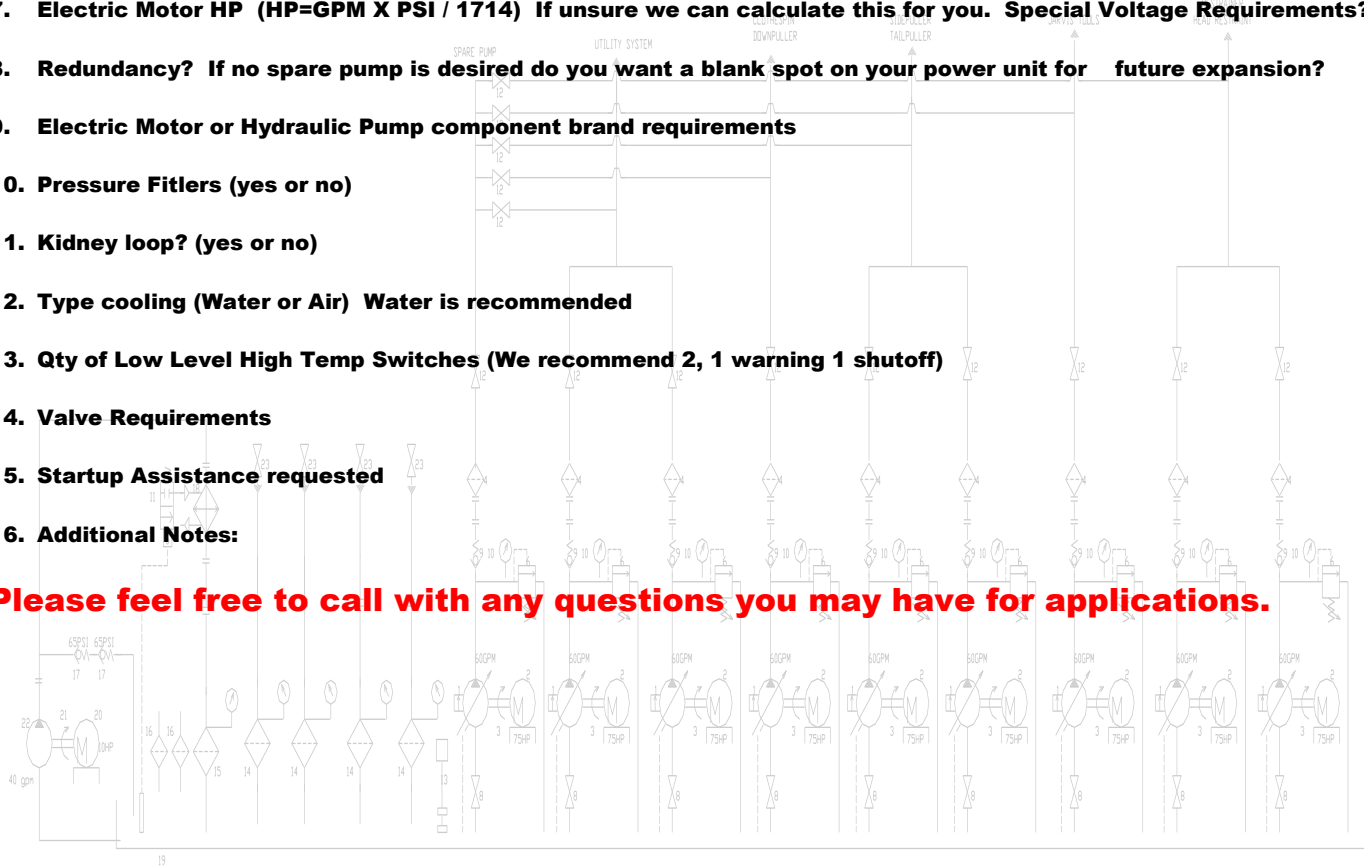


Hydraulic Power Unit Worksheet

Use this sheet to help us have all of your questions answered when requesting a quote for a hydraulic power unit.

1. **Equipment Power unit is running and location of power unit.**
2. **Tank Size in Gallons**
3. **Special requests on tank design. (Unit will be "L" shaped unless otherwise specified)**
4. **Tank Dimensional requirements or restrictions**
5. **Pump GPM / Number of Pumps / Pressure compensated or fixed displacement?**
6. **Pressure of system**
7. **Electric Motor HP ($HP = GPM \times PSI / 1714$) If unsure we can calculate this for you. Special Voltage Requirements?**
8. **Redundancy? If no spare pump is desired do you want a blank spot on your power unit for future expansion?**
9. **Electric Motor or Hydraulic Pump component brand requirements**
10. **Pressure Filtration (yes or no)**
11. **Kidney loop? (yes or no)**
12. **Type cooling (Water or Air) Water is recommended**
13. **Qty of Low Level High Temp Switches (We recommend 2, 1 warning 1 shutoff)**
14. **Valve Requirements**
15. **Startup Assistance requested**
16. **Additional Notes:**

Please feel free to call with any questions you may have for applications.



MILWAUKEE INDUSTRIAL CYLINDERS



Specials are our Standard...

Low Cost Aluminum
Air Cylinders



High Quality Steel
Air Cylinders



Low Pressure
Hydraulic Cylinders



High Pressure
Hydraulic Cylinders



Design your own Cylinder

Air / Hydraulic (if hydraulic what pressure?) _____

Steel or Aluminum _____

Mounting Style (see options on this page) _____

Ports (NPT or SAE) _____

Shaft size (in inches) _____

Thread size (male or female) _____

Bore _____

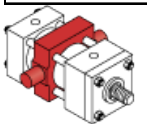
Stroke _____

Cushions No Cushions Both ends Cap end Rod End

Cad drawings can be provided upon request

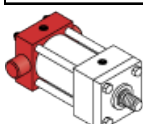
CENTER TRUNION
MOUNT

NFPA MT4 MOUNT



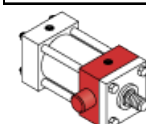
CAP END TRUNION
MOUNT

NFPA MT2 MOUNT



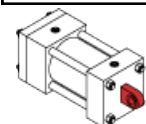
ROD END TRUNION
MOUNT

NFPA MT1 MOUNT



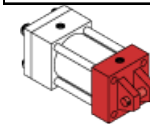
FIXED EYE MOUNT

NFPA MOUNT



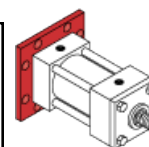
CLEVIS MOUNT

NFPA MP1 MOUNT



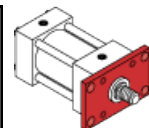
CAP SQUARE FLANGE MOUNT

NFPA ME4 MOUNT



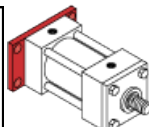
ROD RECTANGULAR MOUNT

NFPA MF1 MOUNT



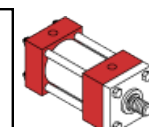
CAP RECTANGULAR MOUNT

NFPA MF2 MOUNT



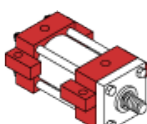
FLUSH TAPPED HOLES IN CAPS

NFPA MS4 MOUNT



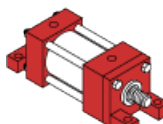
CENTERLINE LUG MOUNT

NFPA MS3 MOUNT



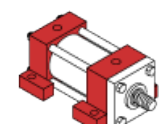
FOOT MOUNT

NFPA MS7 MOUNT



SIDE LUG MOUNT

NFPA MS2 MOUNT



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CYLINDER SPEED AND FORCE CHART

Push Force and Displacement													
Cyl. Bore Size (Inches)	Piston Area (Sq. In.)	Cylinder Push Stroke Force in Pounds at Various Pressures										Cu. Ft. Free Air at 80 Lbs. Pressure, Required to move Max. Load 1 Inch	Displace. Per Inch of Stroke (Gallons)
		25	50	75	100	125	150	175	200	225	250		
1	0.785	20	39	51	65	79	196	392	785	1570	2355	.00293	.00340
1 1/2	1.767	44	88	115	142	177	443	885	1770	3540	5310	.00659	.00785
2	3.14	79	157	204	251	314	785	1570	3140	6280	9420	.01171	.0136
2 1/2	4.91	123	245	319	393	491	1228	2455	4910	9820	14730	.01830	.0213
3 1/4	8.90	208	415	540	664	830	2072	4150	8300	16600	24900	.03093	.0359
4	12.57	314	628	817	1006	1257	3143	6285	12570	25140	37710	.04685	.0544
5	19.64	491	982	1277	1571	1964	4910	9820	19640	39280	58920	.07320	.0850
6	28.27	707	1414	1838	2262	2827	7069	14135	28270	56540	84810	.10540	.1224
7	38.49	962	1924	2502	3079	3849	9623	19245	38490	76980	115470	.14347	.1666
8	50.27	1257	2513	3268	4022	5027	12568	25135	50270	100540	150810	.18740	.2176
10	78.54	1964	3927	5105	6283	7854	19635	39270	78540	157080	235620	.29280	.3400
12	113.10	2828	5655	7352	9048	11310	28275	56550	113100	226200	339300	.42164	.4996
14	153.94	3849	7697	10006	12315	15394	38485	76970	153940	307880	461820	.57389	.6664

Deductions for Pull Force and Displacement													
Piston Rod Dia. (Inches)	Piston Rod Area (Sq. In.)	Piston Rod Diameter Force in Pounds at Various Pressures To determine Cylinder Pull Force or Displacement, deduct the following Force or Displacement corresponding to Rod Size, from selected Push Stroke Force or Displacement corresponding to Bore Size in the table above										Cu. Ft. Free Air at 80 Lbs. Pressure, Required to move Max. Load 1 Inch	Displace. Per Inch of Stroke (Gallons)
		25	50	75	100	125	150	175	200	225	250		
1/2	0.196	5	10	13	16	20	49	98	196	392	588	.00073	.0009
5/8	0.307	8	15	20	25	31	77	154	307	614	921	.00114	.0013
1	0.785	20	39	51	65	79	196	392	785	1570	2355	.00293	.0034
1 3/8	1.49	37	75	97	119	149	373	745	1490	2980	4470	.00554	.0065
1 3/4	2.41	60	121	157	193	241	603	1205	2410	4820	7230	.00897	.0104
2	3.14	79	157	204	251	314	785	1570	3140	6280	9420	.01171	.0136
2 1/2	4.91	123	245	319	393	491	1228	2455	4910	9820	14730	.01830	.0213
3	7.07	177	354	460	566	707	1767	3535	7070	14140	21210	.02635	.0306
3 1/2	9.62	241	481	625	770	962	2405	4810	9620	19240	28860	.03537	.0416
4	12.57	314	628	817	1006	1257	3143	6285	12570	25140	37710	.04685	.0544
4 1/2	15.90	398	795	1033	1272	1590	3975	7950	15900	31800	47708	.05929	.0689
5	19.64	491	982	1277	1571	1964	4910	9820	19640	39280	58920	.07320	.0850
5 1/2	23.76	594	1189	1544	1901	2376	5940	11880	23760	47520	71280	.08957	.1029
7	38.49	962	1924	2502	3079	3849	9623	19245	38490	76980	115470	.14347	.1666
8 1/2	56.75	1419	2838	3689	4540	5675	14187	28375	56750	113500	170250	.21157	.2455

HYDRAULIC CYLINDER SPEEDS (Inches per minute)													
PISTON DIA.	ROD DIA.	1 GPM	3 GPM	5 GPM	8 GPM	12 GPM	15 GPM	20 GPM	25 GPM	30 GPM	40 GPM	50 GPM	75 GPM
1 1/2	none	130	392	654	1034								
	3/8	158	476	792	1265								
	1	235	706	1176	1880								
2	none	73	221	368	588	883	1120						
	1	97	294	490	782	1175	1465						
	1 1/8	139	418	697	1115	1673	2090						
2 1/2	none	47	131	235	376	565	675	940	1175				
	1	56	168	280	448	672	840	1120	1400				
	1 1/8	67	203	339	542	813	1015	1355	1695				
	1 1/4	92	277	463	740	1110	1385	1850	2310				
3 1/4	none	28	83	139	223	334	417	557	696	836	1115		
	1 1/8	34	102	170	271	407	510	680	850	1020	1360		
	1 1/4	39	118	196	313	472	588	784	980	1176	1568		
	2	44	134	224	358	537	672	896	1120	1344	1792		
4	none	18	55	92	147	220	276	368	460	552	736	920	
	1 1/8	22	68	113	182	273	339	452	565	678	904	1130	
	2	24	73	122	196	294	366	488	610	732	976	1220	
	2 1/8	30	90	150	241	362	450	600	750	900	1200	1500	
5	none	12	35	58	94	141	174	232	290	348	464	580	870
	2	14	42	70	112	168	210	280	350	420	560	700	1050
	2 1/8	16	47	78	125	188	235	315	390	470	630	780	1170
	3	18	55	92	147	220	275	365	460	550	730	920	1380
	3 1/8	22	66	111	178	266	333	444	555	665	888	1110	1665

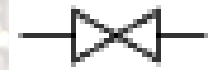


SB

PACKING HOUSE — EQUIPMENT —



1000 WOG stainless ball valves with lock kits NPT Ports



Part #	Size
31017	1/4" NPT THREADED
31018	3/8" NPT THREADED
31019	1/2" NPT THREADED
31020	3/4" NPT THREADED
31021	1" NPT THREADED
31022	1-1/4" NPT THREADED
31023	1-1/2" NPT THREADED
31024	2" NPT THREADED
31025	2-1/2" NPT THREADED
31026	3" NPT THREADED



2000 WOG stainless ball valves with lock kits NPT Ports

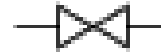


Part #	Size
31027	1/4" NPT THREADED
31028	3/8" NPT THREADED
31029	1/2" NPT THREADED
31030	3/4" NPT THREADED
31031	1" NPT THREADED
31032	1-1/4" NPT THREADED
31033	1-1/2" NPT THREADED
31034	2" NPT THREADED



Hydraulic Ball Valves

2000 PSI O ring Ported



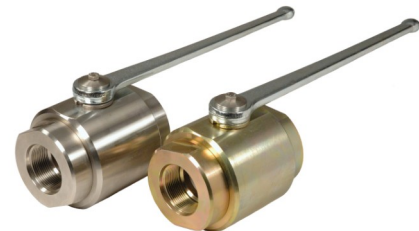
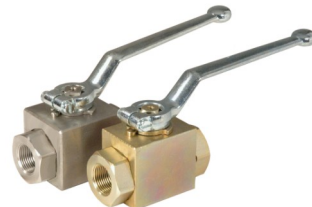
Part #	Size
31035	#4 SAE O RING THREADED
31036	#6 SAE O RING THREADED
31037	# 8 SAE O RING THREADED
31038	#12 SAE O RING THREADED
31039	#16 SAE O RING THREADED
31040	#20 SAE O RING THREADED
31041	#24 SAE O RING THREADED
31042	#32 SAE O RING THREADED



High Pressure Ball Valves Full Ported SAE and NPT Ports



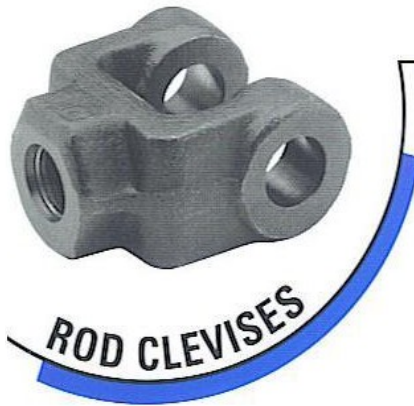
Part #	Size	Psi rating
31001	1/4" NPT THREADED	7250
31002	3/8" NPT THREADED	7250
31003	1/2" NPT THREADED	7250
31004	3/4" NPT THREADED	5800
31005	1" NPT THREADED	5075
31006	1-1/4" NPT THREADED	5075
31007	1-1/2" NPT THREADED	5075
31008	2" NPT THREADED	5075
31009	#4 SAE O RING THREADED	7250
31010	#6 SAE O RING THREADED	7250
31011	# 8 SAE O RING	7250
31012	#12 SAE O RING	5800
31013	#16 SAE O RING	5075
31014	#20 SAE O RING	5075
310115	#24 SAE O RING	5075
31016	#32 SAE O RING THREADED	5075



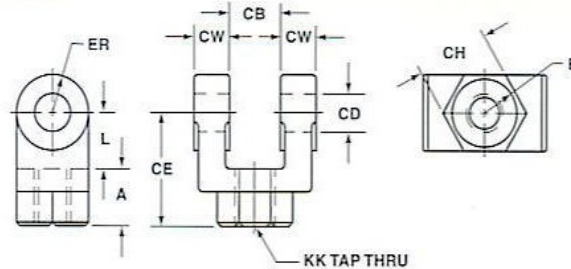
SB

PACKING HOUSE — EQUIPMENT —

STANDARD CYLINDER CLEVISES



ROD CLEVISES



PART #	CB	CD	CE	CH	CW	F	L	A	KK	ER
BDC-05	.765	1/2	1 1/2	1	1/2	1	3/4	3/4	7/16 - 20	1/2
BDC-07	1.265	3/4	2 3/8	1 1/4	5/8	1 1/4	1 1/4	1 1/8	3/4 - 16	3/4
BDC-07M	1.265	3/4	2 1/8	1 3/8	5/8	1 1/4	1	1 1/8	3/4 - 16	3/4
BDC-10	1.515	1	3 1/8	1 1/2	3/4	1 1/2	1 1/2	1 5/8	1 - 14	1
BDC-10M	1.515	1	2 15/16	1 1/2	3/4	1 5/8	1 5/16	1 5/8	1 - 14	1
BDC-13	2.032	1 3/8	4 1/8	2	1	2	2 1/8	2	1 1/4 - 12	1 3/8
BDC-13M	2.032	1 3/8	3 3/4	2	1	2	1 3/4	2	1 1/4 - 12	1 3/8
BDC-17	2.531	1 3/4	4 1/2	2 3/8	1 1/4	2 3/8	2 1/4	2 1/4	1 1/2 - 12	1 3/4
BDC-20	2.531	2	5 1/2	2 15/16	1 1/4	2 15/16	2 1/2	3	1 7/8 - 12	2
BDC-25	3.032	2 1/2	6 1/2	3 1/2	1 1/2	3 1/2	3	3 1/2	2 1/4 - 12	2 1/2
BDC-30	3.032	3	6 3/4	3 7/8	1 1/2	3 7/8	3 1/4	3 1/2	2 1/2 - 12	2 3/4
BDC-30M	3.032	3	6 3/4	3 7/8	1 1/2	3 7/8	3 1/4	3 1/2	2 1/2 - 12	3
BDC-35	4.032	3 1/2	8 1/2	5	2	5	4	4 1/2	3 1/4 - 12	3 1/2
BDC-35M	4.032	3 1/2	7 3/4	5	2	5	4 1/4	3 1/2	3 1/4 - 12	3 1/2
BDC-40	4.532	4	10	6 1/8	2 1/4	6 1/8	4 1/2	5 1/2	4 - 12	4

MATERIAL: 05 thru 10, 1144 Steel Forging; 13 thru 40, Ductile Iron Casting;
05 thru 10, 303 Stainless Steel Forging or 316 Stainless Steel Flat Stock
METRIC THREADS: "KK" available from stock; specials on request

Note all sizes not available from stock. Allow 2-3 weeks for delivery of BDC 25 and above.

Quantity Discounts Available Pins supplied with snap ring standard.

Clevis PN#	Our PN#	Pin PN#	Our PN#
BDC-05	290031	BDC-05-PIN	290032
BDC-07	290033	BDC-07-PIN	290034
BDC-10	290035	BDC-10-PIN	290036
BDC-13	290037	BDC-13-PIN	290038
BDC-17	290039	BDC-17-PIN	290040
BDC-20	290041	BDC-20-PIN	290042
BDC-25	290043	BDC-25-PIN	290044
BDC-30	290045	BDC-30-PIN	290046



NICKEL PLATED HYDRAULIC MOTORS



Our PN#	Manufacturer PN#	Displacement
280000	TF0100AS030AAAB-NP	6.1 cu in
280005	TF0130AS030AAAB-NP	7.8 cu in
280006	TF0170AS030AAAB-NP	10.3 cu in
280007	TF0240AS030AAAB-NP	14.5 cu in
280008	TF0280AS030AAAB-NP	17.1 cu in
280009	TF00475AS030AAAB-NP	29.1 cu in
280010	TG00625AS030AAAB-NP	38.0 cu in
280011	TG0960AS030AAAB-NP	58.5 cu in

- All motors supplied with #10 SAE O ring Ports Nickel Plating is Standard
- 3.25" Pilot Mount (SAE A)
- 1-1/4 Keyed Shaft
- Excellent for Low Speed High Torque Applications

OTHER CONFIGURATIONS AVAILABLE

Conveyor Motor Sizing Worksheet

Length of Conveyor in Feet _____

Width of Conveyor in inches _____

Product weight per foot (15 lbs per foot or 25 lbs per foot) _____

Belt style (i.e. Intralox 800 series) _____

Hydraulic Pressure Available _____

Hydraulic Flow Requirement _____

Service Factor Required (1.5 SF is Standard) _____

Conveyor Speed in Feet Per Second _____

Sprocket Size _____

HYDRAULIC DIRECTIONAL VALVES D03 and D05



D03 Valves



Typical application is a cyl on a fixed displacement pump with relief valve. Often referred to as an open center valve. Oil is allowed to go through the center of valve when de energized. 3 pos valve spring center

PN# 250100

MFG PN# DSG-01-3C60-A120-7090

D05 Valves



Typical application is a cyl on a fixed displacement pump with relief valve. Often referred to as an open center valve. Oil is allowed to go through the center of valve when de energized. 3 pos valve spring center

PN# 250106

MFG PN# DSG-03-3C60-A120-5090



Typical application is a bi directional motor on a pressure compensated pump. Can also be used with one coil for a single directional motor. P port blocked a and b open to tank to allow motor to coast down. 3 pos valve spring center

PN# 250101

MFG PN# DSG-01-3C4-A120-7090



Typical application is a bi directional motor on a pressure compensated pump. Can also be used with one coil for a single directional motor. P port blocked a and b open to tank to allow motor to coast down. 3 pos valve spring center

PN#250107

MFG PN# DSG-03-3C4-A120-5090



Typical application is a cylinder on a pressure compensated pump. All ports blocked in de energized position. 3 pos valve spring center

PN# 250102

MFG PN# DSG-01-3C2-A120-7090



Typical application is a cylinder on a pressure compensated pump. All ports blocked in de energized position. 3 pos valve spring center

PN#250108

MFG PN# DSG-03-3C2-A120-5090



Typical application is a motor on a fixed displacement pump. All ports open in de energized position. 3 pos valve spring center

PN# 250103

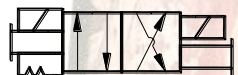
MFG PN# DSG-01-3C3-A120-7090



Typical application is a motor on a fixed displacement pump. All ports open in de energized position. 3 pos valve spring center

PN#250109

MFG PN# DSG-03-3C3-A120-5090



Typical application is a cylinder that will be energized each way to actuate. 2 position detented valve double coil.

PN#250104

MFG PN# DSG-01-2D2-A120-7090



Typical application is a cylinder that will be energized each way to actuate. 2 position detented valve double coil.

PN#250110

MFG PN# DSG-03-2D2-A120-5090



Typical application is a cylinder that will be energized to move one way and de energized to move the cylinder the other way. 2 position single coil

PN#250105

MFG PN# DSG-01-2B2-A120-7090



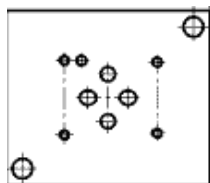
Typical application is a cylinder that will be energized to move one way and de energized to move the cylinder the other way. 2 position single coil

PN#250111

MFG PN# DSG-03-2B2-A120-5090

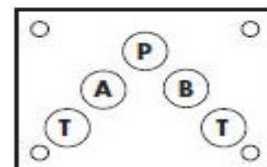
D03 Valve Pattern

0-15 GPM



D05 Valve Pattern

10-25 GPM



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HYDRAULIC DIRECTIONAL VALVES D08



D08 Valves



Typical application is a cyl on a fixed displacement pump with relief valve. Often referred to as an open center valve. Oil is allowed to go through the center of valve when de energized. 3 pos valve spring center

PN# 250112

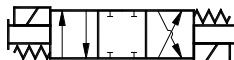
MFG PN# DSHG-06-3C60-A120-5390



Typical application is a bi directional motor on a pressure compensated pump. Can also be used with one coil for a single directional motor. P port blocked a and b open to tank to allow motor to coast down. 3 pos valve spring center

PN# 250113

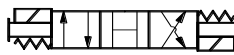
MFG PN# DSHG-06-3C4-A120-5390



Typical application is a cylinder on a pressure compensated pump. All ports blocked in de energized position. 3 pos valve spring center

PN# 250114

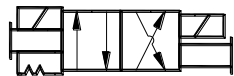
MFG PN# DSHG-06-3C2-A120-5390



Typical application is a motor on a fixed displacement pump. All ports open in de energized position. 3 pos valve spring center

PN# 250115

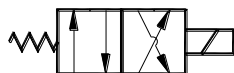
MFG PN# DSHG-06-3C3-A120-5390



Typical application is a cylinder that will be energized each way to actuate. 2 position detented valve double coil.

PN# 250116

MFG PN# DSHG-06-2N2-A120-5390



Typical application is a cylinder that will be energized to move one way and de energized to move the cylinder the other way. 2 position single coil

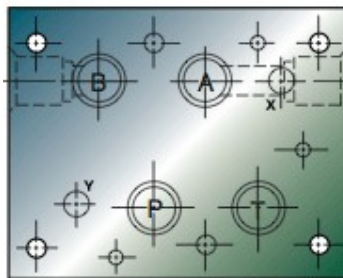
PN#250117

MFG PN# DSHG-06-2B2-A120-5390

Notes on all valves

- All valves come standard with 1/2" conduit connections for wiring. Other connections available from factory.
- Bolt kits for standard valve mount included
- Assemblies can be supplied upon request
- Other valve configurations available from factory
- Valves come with pin type manual override

Feel free to call with questions regarding valve configurations. Many other configurations available from factory.



D08 Valve Pattern

20-50 GPM

Call for Higher flows



Hydraulic flow controls and needle valves

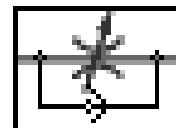
Flow Controls

Part number Size Max Flow in GPM

31050	1/4" NPT	4
31051	3/8" NPT	8
31052	1/2" NPT	12
31053	3/4" NPT	24
31054	1" NPT	40
31055	#4 SAE O Ring	4
31066	#6 SAE O Ring	8
31067	#8 SAE O Ring	12
31068	#12 SAE O Ring	24
31069	#16 SAE O Ring	40



Meters flow in one direction
free flow other direction



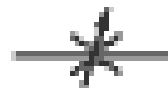
Needle Valves

Part number Size Max Flow in GPM

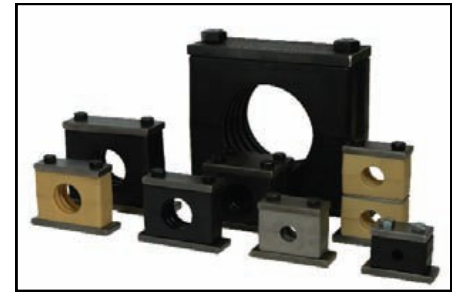
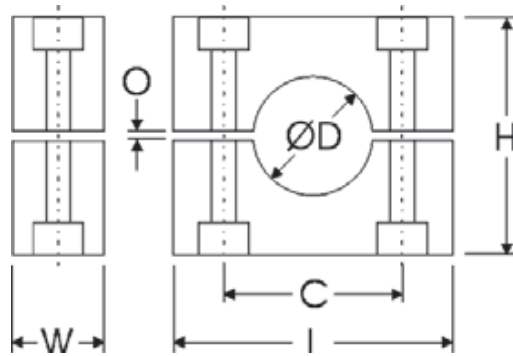
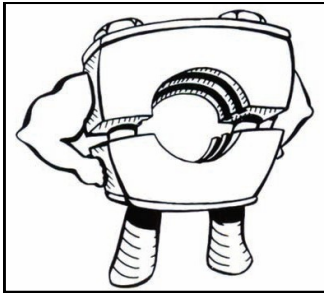
31070	1/4" NPT	4
31071	3/8" NPT	8
31072	1/2" NPT	12
31073	3/4" NPT	24
31074	1" NPT	40
31075	#4 SAE O Ring	4
31076	#6 SAE O Ring	8
31077	#8 SAE O Ring	12
31078	#12 SAE O Ring	24
31079	#16 SAE O Ring	40



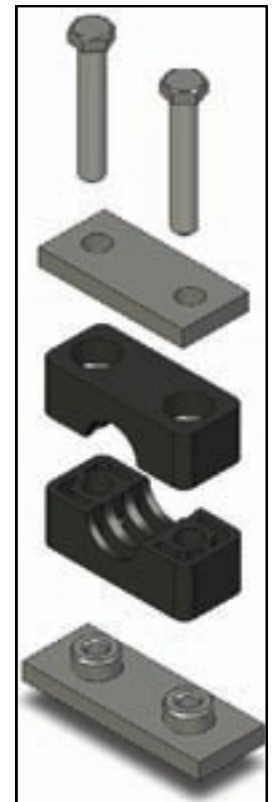
Meters flow in both
directions



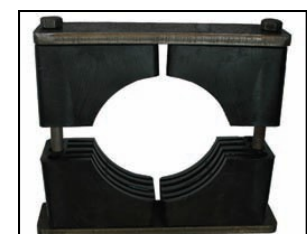
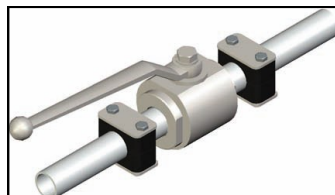
HEAVY DUTY HYDRAULIC PIPE CLAMPS



PIPE SIZE	PART NUMBER	OD	"C" DIM	"L" DIM	"H" DIM	"W" DIM	"O" DIM
1/4"	330001	.540	1.300	2.250	1.375	1.188	.063
3/8"	330002	.675	1.300	2.250	1.375	1.188	.063
1/2"	330003	.840	1.770	2.750	1.875	1.188	.063
3/4"	330004	1.050	1.770	2.750	1.875	1.188	.063
1"	330005	1.315	2.360	3.344	2.375	1.188	.063
1-1/4"	330006	1.660	3.530	4.500	3.500	1.688	.125
1-1/2"	330005	1.900	3.530	4.500	3.500	1.688	.125
2"	330006	2.375	3.530	4.500	3.500	1.688	.125
2-1/2"	330007	2.875	4.810	6.000	4.750	2.188	.125
3"	330008	3.500	4.810	6.000	4.750	2.188	.125
4"	330009	4.500	6.620	8.063	6.625	2.938	.188



CLAMP MATERIAL IS POLYPROPYLENE FOR STANDARD APPLICATIONS. ALUMINUM AVAILABLE FOR HIGH TEMP APPLICATIONS. SANTOPRENE AVAILABLE FOR CHEMICAL APPLICATIONS. CALL FOR SPECIAL PRICING ON THESE ITEMS. OTHER SIZES AND CONFIGURATIONS AVAILABLE. STAINLESS AND ZINC AVAILABLE UPON REQUEST **QUANTITY DISCOUNTS AVAILABLE**



www.sbparking.com

970-304-8388

www.sbparking.com

SB PACKING HOUSE — EQUIPMENT —

HYDRAULIC ACCESSORIES



Standard Filler Breather PN# 80074

Desiccant Filler Breather with Check Valve Pn# 80048

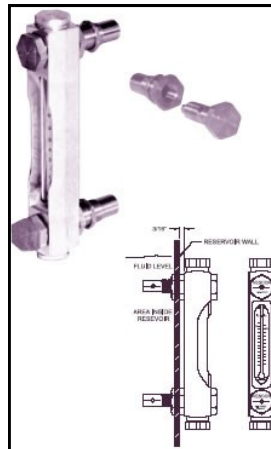
Desiccant Breather may require adapter to fit into standard style bayonet tank fitting



Standard Sight Level / Temperature Gauges

5" Sight Gauge Our PN# 80075

10" Sight Gauge Our Pn# 80076



Sight Level / Temperature Gauge with Check Valve

Shown Gauges have Check Valve that stays on the tank when you change them eliminating messy oil spills while you change.

5" Sight Gauge with Check Valve Our PN# 80077

10" Sight Gauge with Check Valve Our Pn# 80078

Valve, Automatic Water

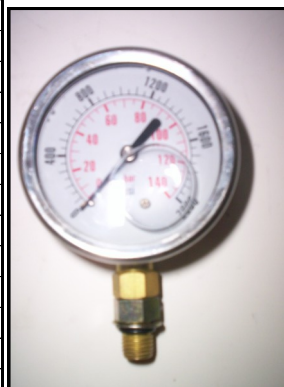
PN#220002

MINO 11415X00133

Consists of Water Valve and Bulbwell for Water Cooler



Gauge Pn#	PSI	Porting
80079	0-100	1/4" NPT
80080	0-300	1/4" NPT
80081	0-600	1/4" NPT
80082	0-1000	1/4" NPT
80083	0-2000	1/4" NPT
80084	0-3000	1/4" NPT
80085	0-5000	1/4" NPT
80086	0-10000	1/4" NPT
80087	0-100	#4 SAE O ring
80088	0-300	#4 SAE O ring
80089	0-600	#4 SAE O ring
80090	0-1000	#4 SAE O ring
80091	0-2000	#4 SAE O ring
80092	0-3000	#4 SAE O ring
80093	0-5000	#4 SAE O ring
80094	0-10000	#4 SAE O ring



HOSE ASSEMBLY WORKSHEET



- Hoses available in many configurations
- Hoses supplied with Gates Megatuff Cover when available
- All hoses crimped within .010 of the manufacturer recommendation
- Hoses available in up to 2"
- All hoses cleaned with Ultra Clean hose cleaning system
- Many hoses can ship same day. (Large Quantity hoses may increase lead time.)
- Onsite hose installation available
- Quantity Discounts Available!

Hose Assembly Worksheet

1. Size of hose (i.e. 3/8, 1/2 etc) _____
2. Application _____
3. Working Pressure of Hose _____
4. Moving hose Yes No
5. Type fittings (circle) female jic swivel, male jic, male pipe, female pipe swivel, metric, flanged. If unsure you can send us a sample.
6. If ends are different type fittings on second side (circle) female jic swivel, male jic, male pipe, female pipe swivel, metric, flanged, o ring boss.
7. Overall Length _____
8. Quantity _____
9. Notes _____

WALKING BEAM AND SWITCH KITS

Switch Kits Include:

2 ea weld fittings (saddle style), 2 ea #6 sae stainless steel 2000 wog locking ball valves, directional control valve with 115v control, subplate, bolt kits, assembly labor, hydraulic cylinder 1-1/2 x 2" 1500 psi epoxy coated, clevis, associated hydraulic fittings, and 4' hoses.

Notes

Weld fittings are saddle style, hole is drilled in pipe and fitting placed on pipe and welded in place. We can prefabricate headers or provide additional instructions if requested. Standard Headers will be provided with fittings on 36" centers.

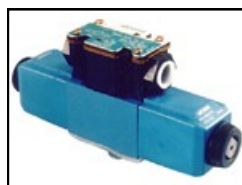
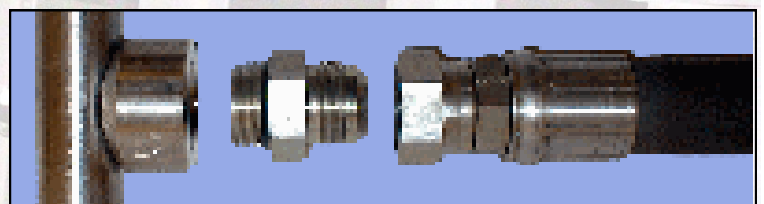
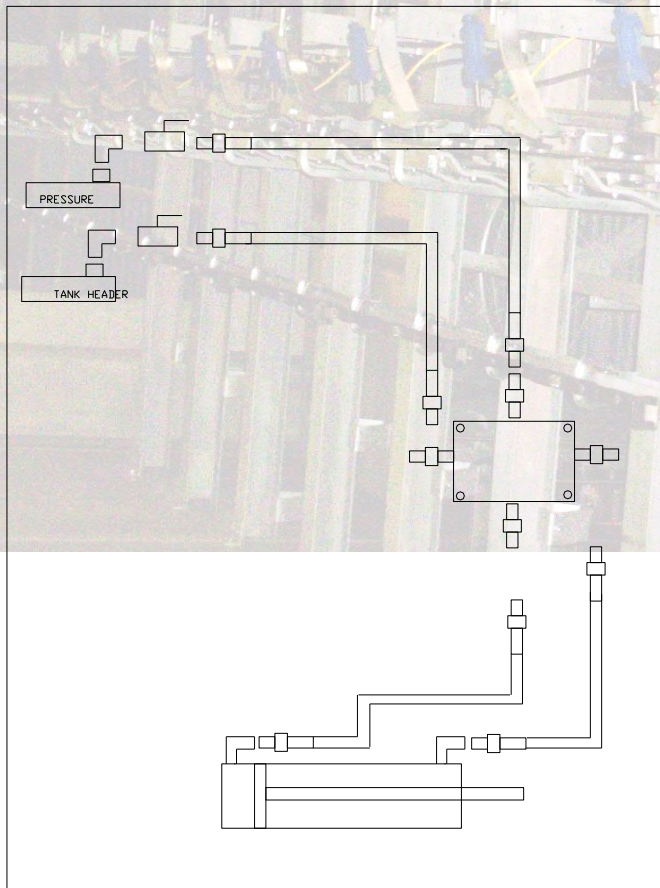
Hydraulic fittings between ball valve and header are o ring unions, ball valve to valve are 90 degree o ring to JIC male, valve manifold fittings are all straight oring to JIC male, cylinder fittings 90 degree o ring to male jic. All fittings #6 o ring and #6 JIC male. Fitting at P port of valve is an orifice fitting for speed control.

Cylinder is an 1-1/2" bore 2" stroke cushioned both sides, clevis mount, 1500 psi cylinder Orifice is drilled in piston to provide movement of oil for warming. With orifice installed 2 position valve required to provide oil warming.

Valve to be 115V conduit connection. Customer to specify 2 position detent, 2 position spring offset, or 3 position spring center. Note if 3 position valve is used you will not use warming circuit.

Hoses to be 4' unless otherwise specified. Different lengths provided upon request. May change pricing of kit.

Quantity discounts available



WALKING BEAM AND SWITCH KITS

Walking Beam Kits Include:

2 ea weld fittings (saddle style), 2 ea #8 sae stainless steel 2000 wog locking ball valves, high flow directional control valve with 115v control, subplate, bolt kits, assembly labor, hydraulic cylinder 2" x 18" 1500 psi epoxy coated, clevis, associated hydraulic fittings, and 4' hoses.

Notes

Weld fittings are saddle style, hole is drilled in pipe and fitting placed on pipe and welded in place. We can prefabricate headers or provide additional instructions if requested. Standard Headers will be provided with fittings on 36" centers.

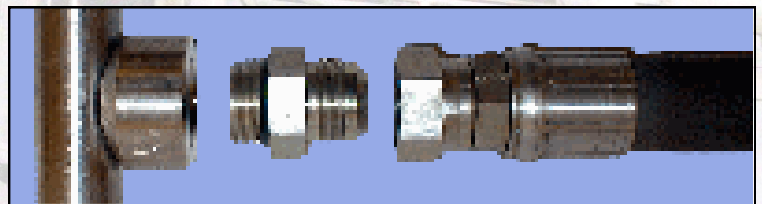
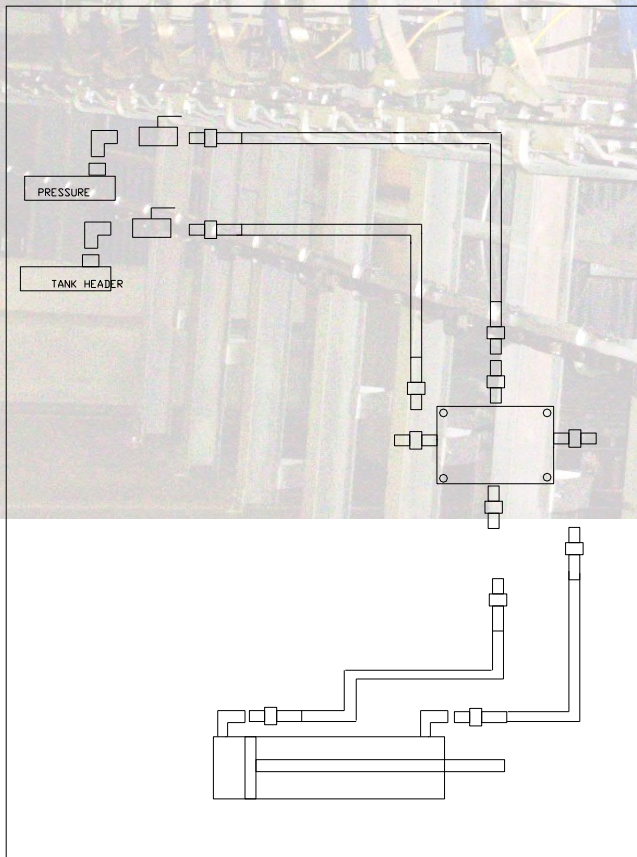
Hydraulic fittings between ball valve and header are o ring unions, ball valve to valve are 90 degree o ring to JIC male, valve manifold fittings are all straight oring to JIC male, cylinder fittings 90 degree o ring to male jic. All fittings #8 o ring and #8 JIC male.

Cylinder is a 2-1/2" bore x 18" stroke cushioned both sides, clevis mount, 1500 psi cylinder Orifice is drilled in piston to provide movement of oil for warming. With orifice installed 2 position valve required to provide oil warming.

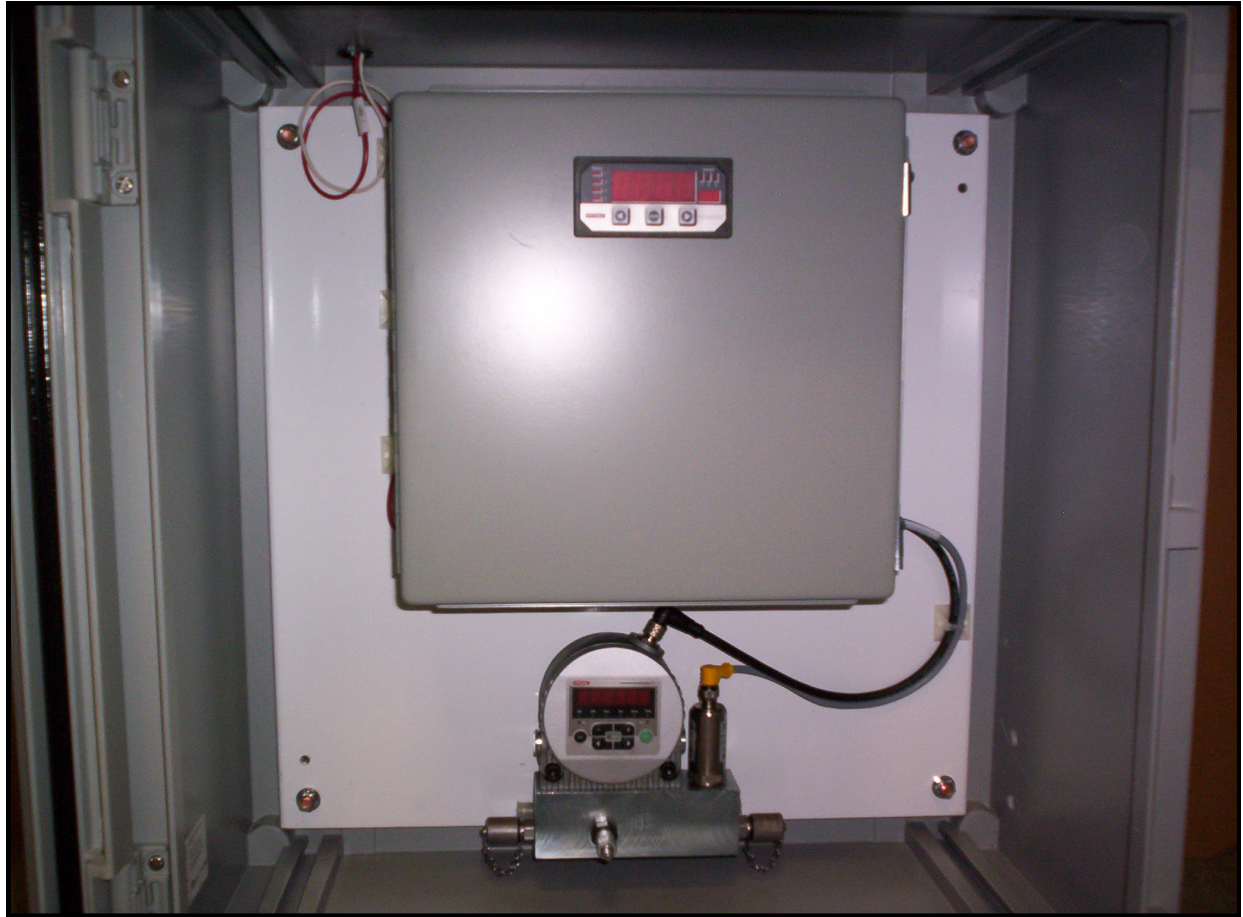
Valve to be 115V conduit connection. Customer to specify 2 position detent, 2 position spring offset, or 3 position spring center. Note if 3 position valve is used you will not use warming circuit. Cylinder speed to be controlled either by maximum volume stops on valve or modular flow control.

Hoses to be 4' unless otherwise specified. Different lengths provided upon request. May change pricing of kit.

Quantity discounts available



Oil Condition Monitoring System



Provides real time information on:

- ISO Particle Count (6 Digit)
- Temperature
- Water Saturation (In Percent)

Online, real-time condition monitoring allows you to have total predictive maintenance.

Plugs into any existing critical hydraulic system

The contamination sensor block kit combines two condition monitoring products, the CS1000 contamination sensor and the AS1000 Aqua Sensor into one plug and play unit. It serves as an on-line measurement of solid contamination and water in hydraulic and lube systems.

6 Digit ISO code as per ISO 4406:1999

Display up to Class ISO 7 / 6 / 5 to 28 / 27 / 26

Fluid Viscosities from 1 to 1000 cSt

Fluid Temperature Range 32 degrees F to 185 degrees F

Maximum Operating Pressure of 4350 PSI

Allows immediate reaction to any changes in oil condition

Electrical Capabilities and Requirements

Requires 120vac 5amp circuit (could be cord and plug connected to an existing outlet if desired)

Three 4-20ma analog outputs available to output Oil Temperature, Water Content Level, and ISO 4, 6, 14 particle count to plant monitoring systems. (I.E. Wonderware,

Pricing

Standard unit to include Aqua Sensor, Oil Contamination Sensor, Local Alarm (Audible and Flashing Light), Separate Display for AS1000 Sensor. Cables and Software. Sensors mounted in Nema 4X Fiberglass enclosure with Plexiglass window.

\$8,960.00 ea Quantity pricing available upon request



www.sbparking.com

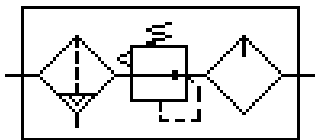
970-304-8388



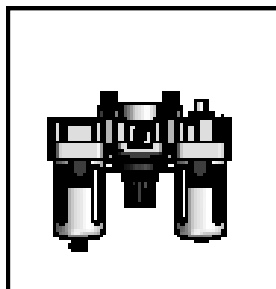
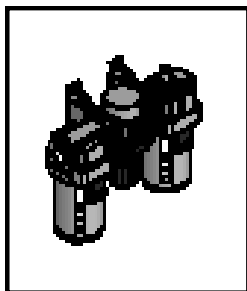
www.sbparking.com

PNEUMATIC COMPONENTS

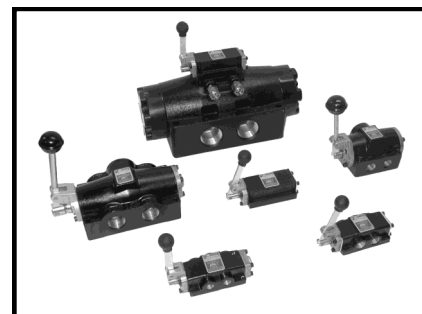
FILTER, REGULATOR, LUBRICATOR ASSEMBLIES



Our PN#	Size
290100	1/4" NPT
290101	3/8" NPT
290102	1/2" NPT
290103	3/4" NPT
290104	1" NPT



MANUAL DIRECTIONAL CONTROL VALVES



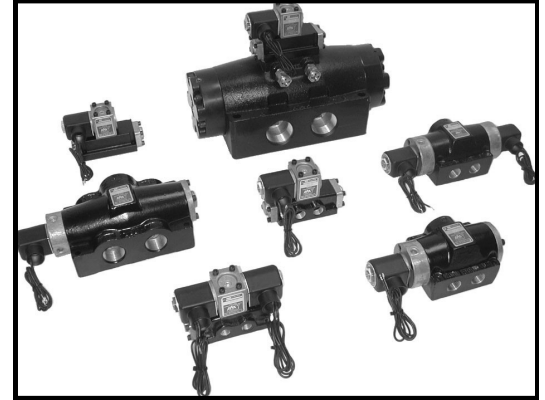
Manufacturer Model #	Our PN#	Size	Description
HE2	290200	1/4" NPT	2 POSITION DETENT MANUAL
HE3	290201	3/8" NPT	2 POSITION DETENT MANUAL
HE4	290202	1/2" NPT	2 POSITION DETENT MANUAL
HE6	290203	3/4" NPT	2 POSITION DETENT MANUAL

Manufacturer Model #	Our PN#	Size	Description
HO2	290204	1/4" NPT	3 POSITION SPRING CENTER MANUAL
HO3	290205	3/8" NPT	3 POSITION SPRING CENTER MANUAL
HO4	290206	1/2" NPT	3 POSITION SPRING CENTER MANUAL
HO6	290207	3/4" NPT	3 POSITION SPRING CENTER MANUAL

PNEUMATIC SOLENOID VALVES

SOLENOID OPERATED DIRECTIONAL CONTROL VALVES

**ALL VALVES SUPPLIED WITH 115V AC COILS, MANUAL OVERRIDE STANDARD.
1/2" NPT CONDUIT CONNECTION FOR WIRING, HAND LEVER STANDARD.
OTHER CONFIGURATIONS AVAILABLE FROM FACTORY.**



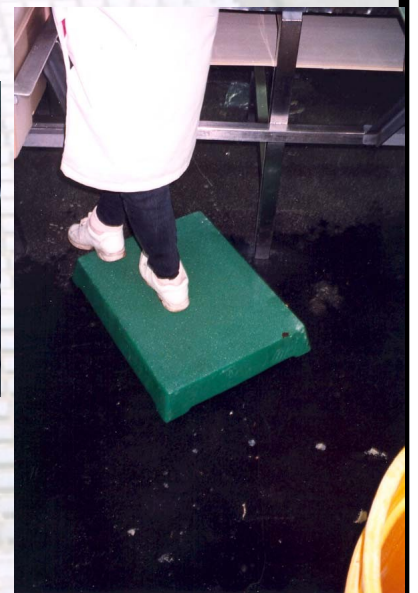
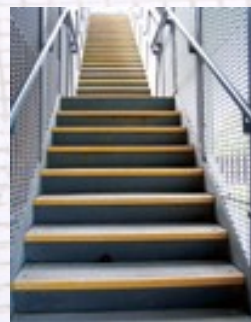
Manufacturer Model #	Our PN#	Size	Description
SO20	290208	1/4" NPT	SINGLE SOLENOID 2 POSITION SPRING RETURN / MANUAL OVERRIDE
SO30	290209	3/8" NPT	SINGLE SOLENOID 2 POSITION SPRING RETURN / MANUAL OVERRIDE
SO40	290210	1/2" NPT	SINGLE SOLENOID 2 POSITION SPRING RETURN / MANUAL OVERRIDE
SO60	290211	3/4" NPT	SINGLE SOLENOID 2 POSITION SPRING RETURN / MANUAL OVERRIDE
Manufacturer Model #	Our PN#	Size	Description
SS20	290212	1/4" NPT	DOUBLE SOLENOID 2 POSITION FRICTION DETENT / MANUAL OVERRIDE
SS30	290213	3/8" NPT	DOUBLE SOLENOID 2 POSITION FRICTION DETENT / MANUAL OVERRIDE
SS40	290214	1/2" NPT	DOUBLE SOLENOID 2 POSITION FRICTION DETENT / MANUAL OVERRIDE
SS60	290215	3/4" NPT	DOUBLE SOLENOID 2 POSITION FRICTION DETENT / MANUAL OVERRIDE
Manufacturer Model #	Our PN#	Size	Description
SYO20	290216	1/4" NPT	3 POSITION SPRING CENTER / MANUAL OVERRIDE
SYO30	290217	3/8" NPT	3 POSITION SPRING CENTER / MANUAL OVERRIDE
SYO40	290218	1/2" NPT	3 POSITION SPRING CENTER / MANUAL OVERRIDE
SYO60	290219	3/4" NPT	3 POSITION SPRING CENTER / MANUAL OVERRIDE

SB

PACKING HOUSE — EQUIPMENT —



Fibergrate
Composite Structures





Composite Structures

Certifications

ISO 9001:2000 Certification (Certificate Number: CERT-05835-2003-AQ-HOU-RAB)

The latest Quality Management System Standard established by the International Organization for Standardization (ISO). According to ISO, the new standard reflects stricter requirements for "meeting customer expectations and using a process approach to quality management." It replaces the 1994 versions of ISO 9001, ISO 9002 and ISO 9003, all of which expire on December 15, 2003. After that date, the only valid accredited certificates will be those stating conformity to ISO 9001:2000.

- **Addison Corporate and Stephenville Manufacturing Facility**

ABS (American Bureau of Shipping) Type Approval

In the voluntary Type Approval Program, ABS certifies that enrolled manufacturers around the world are capable of consistently producing a product in compliance with product specifications. Each product is tested extensively to verify that it will perform reliably in the marine and off-shore environment.

- **Safe-T-Span® I6015 and I4015 Phenolic** (Certificate Number: 01-HS34733-X)
- **Vi-Corr® Molded Grating** (Certificate Number: 01-HS34733-X)

UL (Underwriters Laboratories)

A UL Classification is given to production grade products which have been tested and evaluated with respect to certain properties of the product. Having a UL Classification means that UL has been certified by an independent third party. This UL Classification provides extra security knowing that Fibergrate offers grating which meets established performance standards and that UL's field representatives will continue to verify compliance with unscheduled factory follow-up visits.

- **Special Order Vi-Corr® and IFR square mesh gratings, meniscus top**

ASTM E-84-01 Standard Test Method for Surface Burning Characteristics of Bldg Materials

This fire-test-response standard for the comparative surface burning behavior of building materials is applicable to exposed surfaces. The purpose of this test method is to determine the relative burning behavior of the material by observing the flame spread along the specimen. Flame spread and smoke developed index are reported.

ASTM E-84 Rating of 25 or less – Molded (Corvex®, ELS, FGI, IFR, Vi-Corr®, FS-25, VE-25) Pultruded (ISOFR, VEFR) Moltruded® (Rigidex® I, Rigidex® II), Shapes (ISOFR, VEFR), Dynarail® Ladders and Handrail

ASTM E-84 Rating of 10 or less - XFR

ASTM E-84 Rating of 5 or less – Phenolic

USDA Accepted

Fibergrate FGI resin along with Chemgrate CP-84 and FS-25 resin flooring products, such as grating, floor plate and Safe-T-Stands, are formulated and manufactured to meet USDA acceptance. These products are manufactured to be used in areas intended for repeated use in contact with food. The USDA no longer issues letters of approval for flooring products on a case-by-case basis. To reduce problems associated with government audits and long-term liabilities, Fibergrate has maintained its compliance status.

- **FGI, CP-84, FS-25 molded flooring products**

CFIA (Canadian Food Inspection Agency) Approval Letter 3100-3/F139

CFIA has reviewed Fibergrate materials and found them acceptable for installations in federally registered

food establishments. Materials may be installed in such a manner as not to present a sanitation maintenance problem to the food environment or food products.

- **Fibergrate Molded Grating, Rigidex Moltruded Grating, Safe-T-Span Pultruded Industrial and Pedestrian Grating, Dynarail Handrail, Dynarail Safety Ladder Systems, Dynaform Structural Shapes, Chemplate, Fiberplate and EZ Angle Embedment Angles.**

AAR (Association of American Railroads) Approval



PACKING HOUSE — EQUIPMENT —

Fiberplate Aluminum Oxide Gritted 1/2" Thick Light Grey

<u>Part Number</u>	<u>Size</u>
60012	4' x 12' x 1/2"
60013	4' x 8' x 1/2"
60014	5' x 10' x 1/2"
60015	3' x 10' x 1/2"

Fibergrating Aluminum Oxide Gritted 1-1/2" Thick Light Grey

<u>Part Number</u>	<u>Size</u>
60016	3' x 10' x 1-1/2"
60017	4' x 8' x 1-1/2"
60018	5' x 10' x 1-1/2"
60019	4' x 12' x 1-1/2"

Fibergrating Aluminum Oxide Gritted 1" Thick Light Grey

<u>Part Number</u>	<u>Size</u>
60023	4' x 12' x 1"
60024	4' x 8' x 1"
60025	3' x 10' x 1"

Fibergrating Aluminum Oxide Gritted 2" Thick Light Grey

<u>Part Number</u>	<u>Size</u>
60020	4' x 12' x 2"

Listed items stock at our Greeley Colorado Warehouse.

Quantity discounts available

Other colors and sizes available from factory



Fibergrate
Composite Structures

SB

PACKING HOUSE — EQUIPMENT —

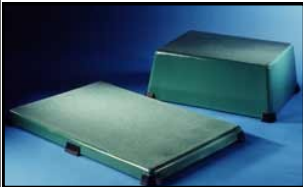
Fibergrate

Composite Structures

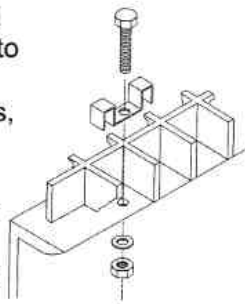
Ergonomic Work Stands



PN:	SIZE:	HEIGHT:	WEIGHT:
238110	18" x 24"	10"	26.4
238102	18" x 24"	2"	9.6
238104	18" x 24"	4"	13.8
238106	18" x 24"	6"	18
238108	18" x 24"	8"	22.2
238010	24" x 24"	10"	29.6
238002	24" x 24"	2"	12.8
238004	24" x 24"	4"	17
238006	24" x 24"	6"	21.2
238008	24" x 24"	8"	25.4
238210	36" x 24"	10"	34.2
238202	36" x 24"	2"	19.4
238204	36" x 24"	4"	23.1
238206	36" x 24"	6"	26.8
238208	36" x 24"	8"	30



TYPE M HOLD DOWN CLIPS: secure panels to a support in the same manner as Type J Clips, but designed to use two adjacent grating bars for a more secure fit. Similar in design to metal grating saddle clips.



M-Clips PN# 60022



Sinks and Sink Accessories

Our Sinks Come Completely assembled with Knee or Foot Valve, Sterilizer with UHMW Knife Holder, Soap Dispenser, Associated Ball Valves, check valves, shower head, and hose from valve to spigot. Just hook up your water lines.

Options

Sink with legs
Sink without legs
Trash ring
Water fountain
Quantity discounts available

TOP VIEW



Shown with optional trash bag ring

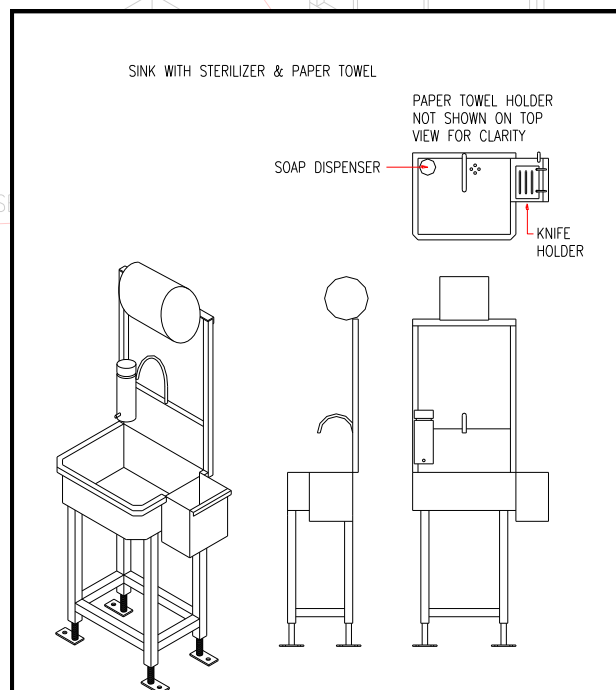


Miscellaneous Sink Parts

Showerhead (5gpm) 1/2" NPT
PN# 290030
UHMW Knife Holder with U bolts
PN# 280059

See next Page for Sink Valves available

Other Sink Configurations available



Sink Valves



SHORT DOUBLE FOOT
VALVE TOP MOUNT
MODEL 101

OUR PN# 50101



SHORT SINGLE FOOT
PEDAL TOP MOUNT
MODEL 102

OUR PN# 50102



LONG DOUBLE FOOT
PEDAL TOP MOUNT
MODEL 103

OUR PN# 50103



LONG SINGLE FOOT
PEDAL TOP MOUNT
MODEL 104

OUR PN# 50104



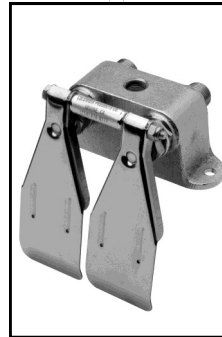
LONG DOUBLE FOOT
PEDAL BOTTOM
MOUNT MODEL 105

OUR PN# 50105



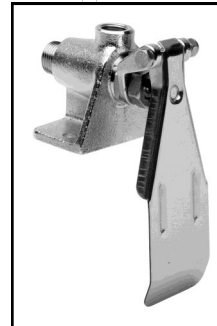
LONG SINGLE FOOT
PEDAL BOTTOM MOUNT
MODEL 106

OUR PN# 50106



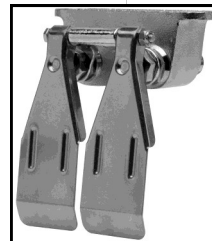
DOUBLE KNEE
PEDAL TOP MOUNT
MODEL 109

OUR PN# 50109



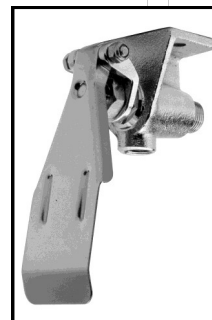
SINGLE KNEE
PEDAL TOP
MOUNT MODEL
110

OUR PN# 50110



DOUBLE KNEE
PEDAL BOTTOM
MOUNT MODEL 111

OUR PN# 50111



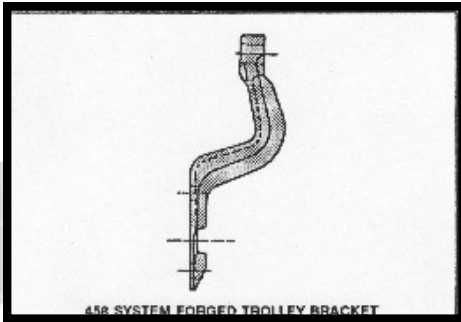
SINGLE KNEE PEDAL
BOTTOM MOUNT
MODEL 112

OUR PN# 50112

OVERHEAD CONVEYOR PRODUCTS

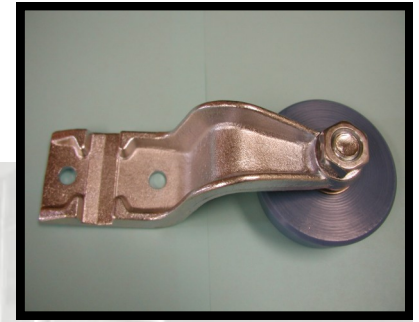
458 CHAIN COMPONENTS

FORGED TROLLEY WHEELS

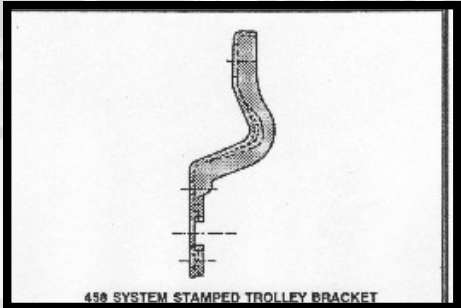


Part # 458001

(Quantity Discounts Available)



STAMPED TROLLEY WHEELS

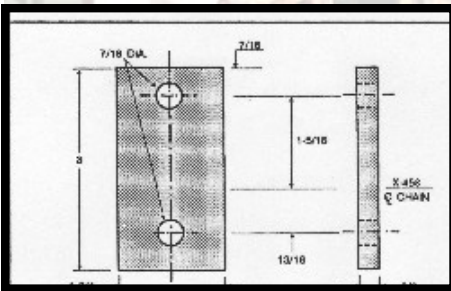


Part #458012

(Quantity Discounts Available)



I ATTACHMENTS



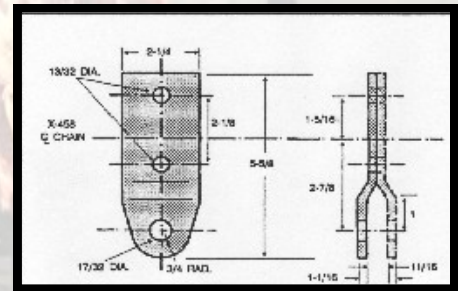
Part #458007

(Quantity Discounts Available)

**We do Chain Assemblies.
Call For Quote.**

Fast Lead Times!

H ATTACHMENTS



Part # 458011

(Quantity Discounts Available)

X-458 MICROLOY CHAIN (SPECIFY STANDARD 458 OR FROST SMOOTHLINK)



X-458 Microloy chain sold in 10' lengths

Pn#458008

www.sbparking.com

970-304-8388

www.sbparking.com

CHAIN ASSEMBLIES

STANDARD CONFIGURATIONS SHOWN

458 MICROLOY CHAIN JERVIS WEBB MADE IN 20' LENGTHS FOR REPEATABILITY

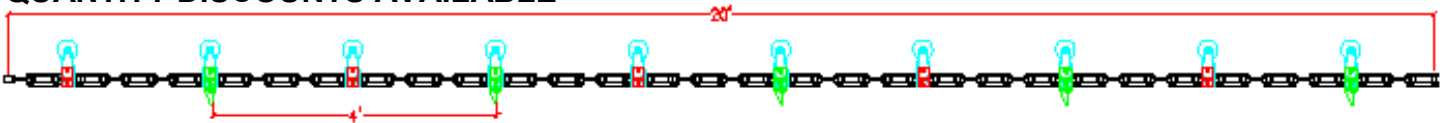
STAMPED OR CAST BLUE PLASTIC TROLLEY WHEELS ON 4' CENTERS

"I" ATTACHMENTS ON 4' CENTERS

PUSHER DOGS ON 4' CENTERS (SPECIFY PUSHER DOGS AND CARRIERS)

ALLOW 1-2 WEEKS FOR ASSEMBLY DEPENDENT ON AVAILABILITY OF COMPONENTS

QUANTITY DISCOUNTS AVAILABLE



458 MICROLOY JERVIS WEBB CHAIN ASSEMBLED IN 20' LENGTHS FOR REPEATABILITY

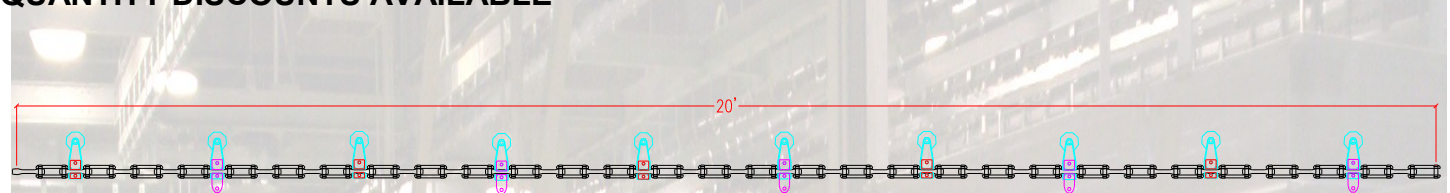
STAMPED OR CAST BLUE PLASTIC TROLLEY WHEELS ON 4' CENTERS

"I" ATTACHMENTS ON 4' CENTERS

"H" ATTACHMENTS ON 4' CENTERS

ALLOW 1-2 WEEKS FOR ASSEMBLY DEPENDENT ON AVAILABILITY OF COMPONENTS

QUANTITY DISCOUNTS AVAILABLE



CHAIN ASSEMBLY WORKSHEET FOR 458 ROLLER I BEAM MICROLOY CHAIN

TYPE TROLLEY WHEELS (CAST OR STAMPED) _____

CENTERS ON TROLLEY WHEELS (2 FEET IS STANDARD) _____

I ATTACHMENTS CENTERS (4 FEET IS STANDARD) _____

H ATTACHMENTS CENTERS (4 FEET IS STANDARD) _____

PUSHER DOG MODEL # _____

CARRIER MODEL # _____

CHAIN BRAND OR ANY OTHER SPECIAL REQUIREMENTS _____

MISCELLANEOUS RAIL COMPONENTS



Meat Rail Bolts 1-3/4" + nut and lock washer

PN# 458061



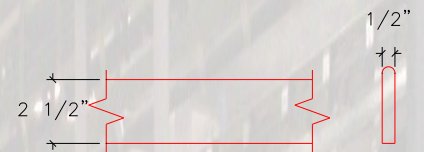
Meat Rail 1/2" x 2-1/2" x 20'

PN# 458062



Meat Rail 1/2" x 3" x 20'

PN# 458063



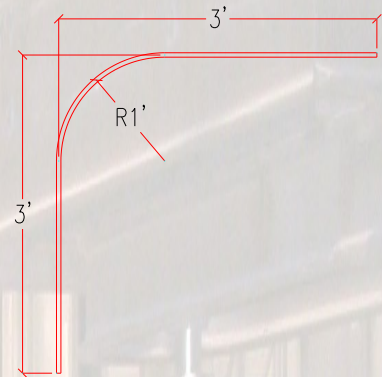
Meat Rail 90 1/2" x 2-1/2"

PN# 458064



Meat Rail 90 1/2" x 3"

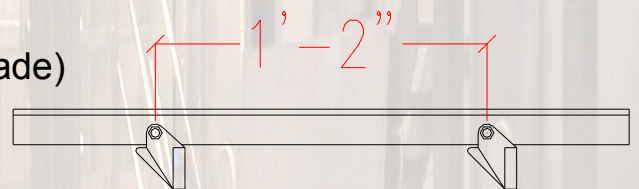
PN# 458065



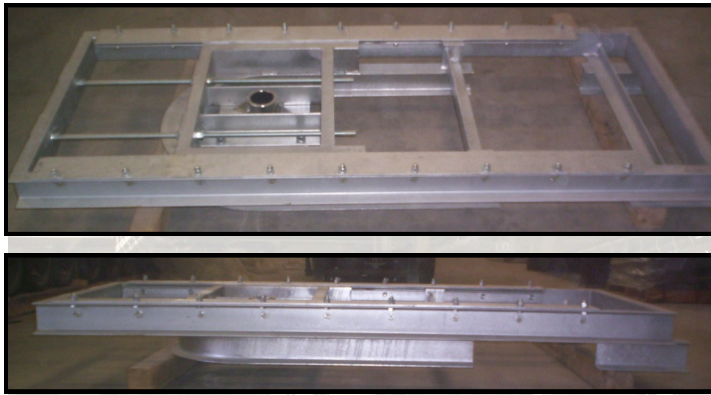
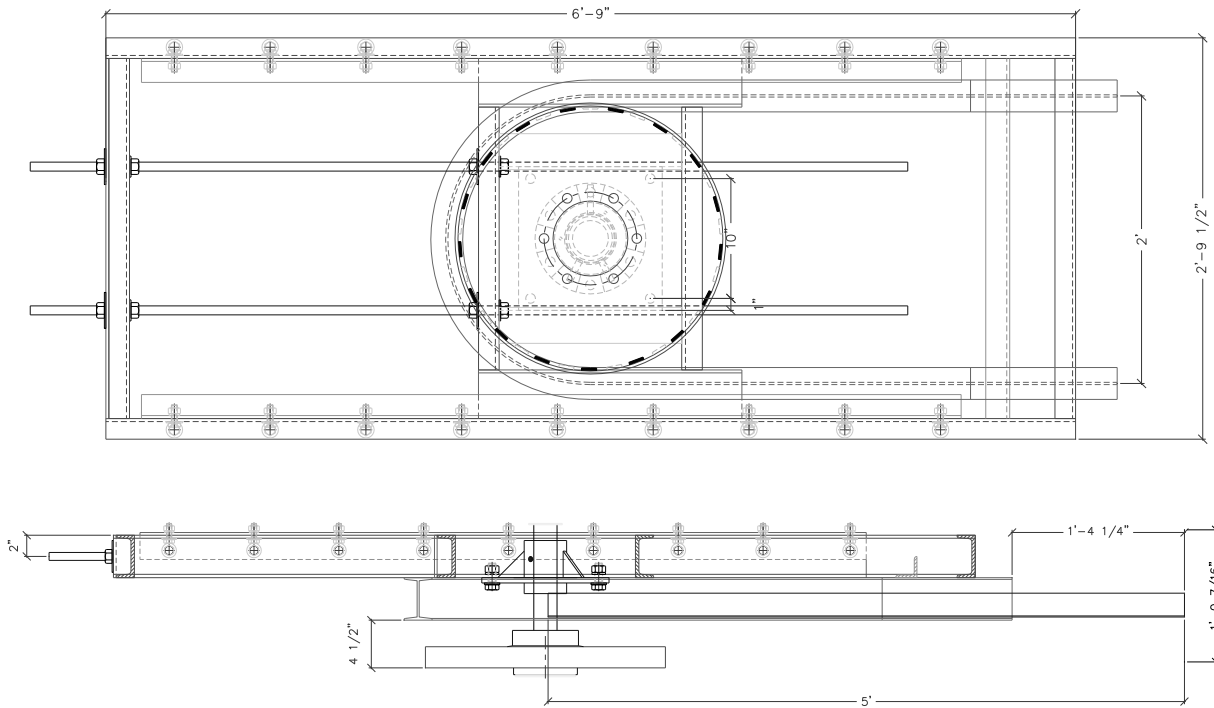
Walking Beam Tee Track 14" centers

PN# 458066

(Other centers can be made)



458 CHAIN TAKE UP ASSEMBLY



Take Up Assembly

458 Roller I Beam

Part # 458019

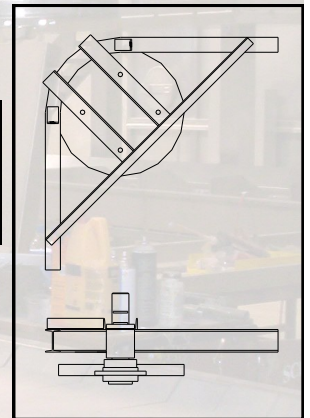
Note

take up assy does not include traction wheel and bearing unless specified. See pricing below.

Corner Assy 458 Chain

PN# 458038

Includes Traction Wheel and Dodge #70 Bearing



24" Traction wheel with Dodge #70 6 bolt Bearing assembled

PN# 458020

24" Traction wheel only

PN# 280212

#70 6 Bolt Bearing only



NOTES:

APPROX 1
SUPPORT

PACKING HOUSE — EQUIPMENT —

Cooler Spray Chill Components

Spray Chill Nozzles

Available in 180 degree or 360 degree sprays

Easy Installation: Just drill 9/16" hole and clip on

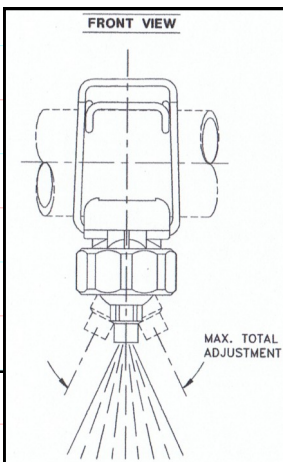
180 degree Nozzle PN#140004

360 degree Nozzle PN#140005

Quantity Discounts Available

180 Nozzles use .4 GPM @25PSI

360 Nozzles use .55 GPM @25PSI



360 degree nozzle



180 degree nozzle

Spray Chill PLC Control Panels Built to Order

Allow 3-4 weeks for Delivery

Operator Interface Available

Spray Chill Solenoid Valves

115V Standard signal to actuate Valve

1-1/2" NPT Porting with Flow control and Manual Override

PN# 280172

Quantity Discounts Available

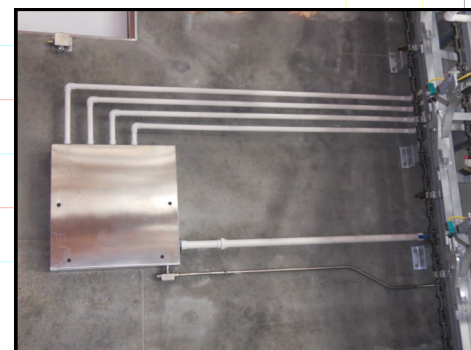


Spray Chill Panel

External Piping Connections

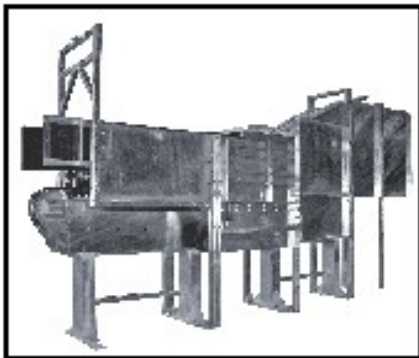
All Panels custom built

Allow 2-3 weeks

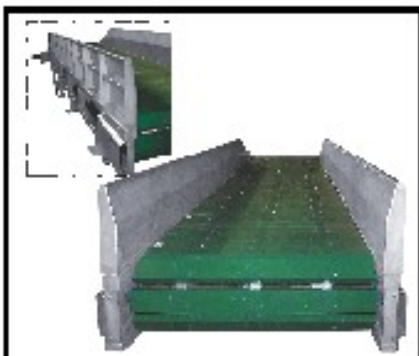


SB

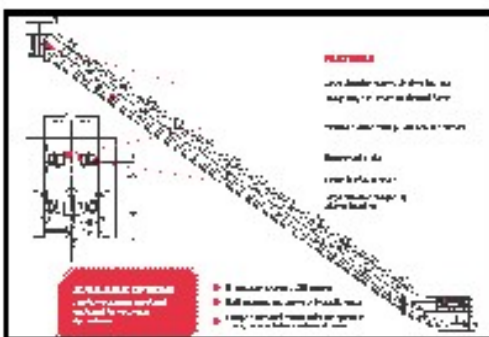
PACKING HOUSE — EQUIPMENT —



Red Beef Restrainer
Clothespin Downpuller
Stimulator
Tailpuller
SidePuller



Center Track Restrainer
Restrainer Take Away Belt
Shackle Incline Conveyor
Hydraulic Power Unit
SB Automatic DownPuller



www.sbparking.com

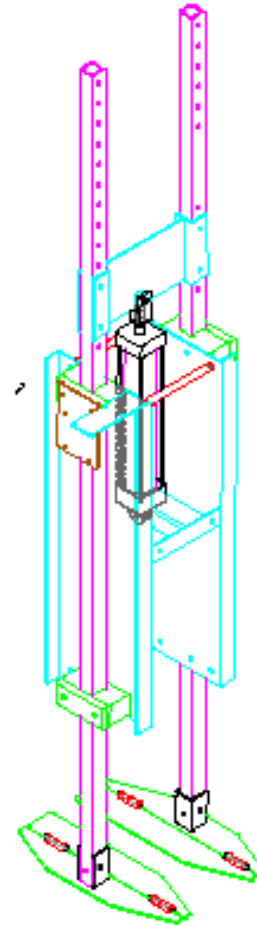
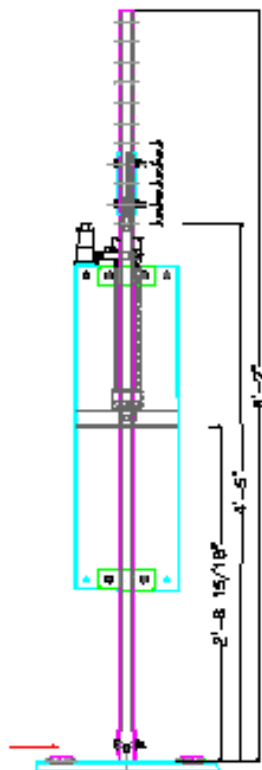
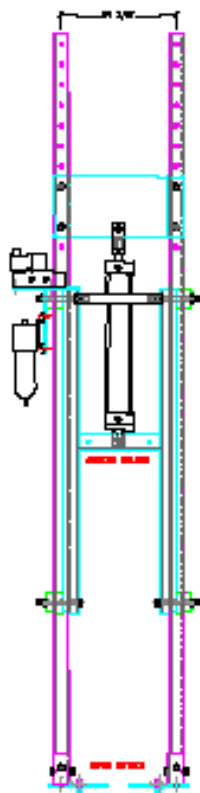
970-304-8388

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SB

PACKING HOUSE — EQUIPMENT —

BONE DROPPER / LOIN DROPPER



- AVAILABLE IN 12" OR 18" STROKE
- READY TO MOUNT
- IN STOCK
- EASILY MAINTAINED
- EASILY ADJUSTABLE
- INCLUDES AIR VALVE, LIMIT SWITCH, AIR FILTER REGULATOR LUBRICATOR

12" BONE DROPPER

28" BONE DROPPER

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970-304-8388

www.sbparking.com

Notes

970-304-8388 Office
970-304-8399 Fax



17168 N Frontage Road
Fort Morgan, Co 80701
Www.sbparking.com

Application For Credit

Company Name _____

Address _____

Billing Address _____

Ship To Address _____

Phone # _____ Fax # _____

Type of Business _____

Business Is: ☐ Corporation ☐ Partnership ☐ Sole Proprietorship

Date Established _____ Federal ID# or Social Security # _____

Principal Owners / Stockholders / Officers

Name _____ Title _____

Address _____ SS# _____

Name _____ Title _____

Address _____ SS# _____

Name _____ Title _____

Address _____ SS# _____

Bank Reference

Bank Name _____ Address _____

Bank Officer _____ Phone # _____

Continued on next page



Trade References

Company Name _____ Type of Business _____

Address _____

Phone # _____ Fax # _____ Contact _____

Company Name _____ Type of Business _____

Address _____

Phone # _____ Fax # _____ Contact _____

Company Name _____ Type of Business _____

Address _____

Phone # _____ Fax # _____ Contact _____

Terms

1. Invoices are due within 10 days from Date of Invoice
2. Finance Charges of 1.5% per month will be charged on all balances not paid within 30 days
3. Accounts with balances 60 days past due become C.O.D. (cash on day of service or no service)
4. I (We) agree to pay all collection costs, including reasonable attorney fees, and hereby waive all rights to claim exemption under state laws.
5. In the event legal proceedings are necessary to collect on any invoices, I (we) expressly consent to venue and jurisdiction in the State of Colorado.
6. The above information is given for the purpose of obtaining credit and is warranted to be true. I (we) affirm that I (we) are financially able to meet our obligations and will remit in accordance to the invoice terms.
7. I (we) hereby authorize all of the above named persons or companies to release to SB Packing House Equipment, LLLP., or it's representatives such information with regard to my / our financial condition.
8. I (we) authorize SB Packing House Equipment, LLLP. To obtain a consumer credit report on my / our credit history, in accordance with the Federal Fair Credit Reporting Act, and to use this report in making decisions concerning my / our credit worthiness.

Company Name _____ Today's Date _____

Authorized Signature _____ Title _____

Print Name _____

