

Yale[®]
By Columbus McKinnon

Y80 SERIES
ELECTRIC WIRE ROPE HOISTS



Y80 SERIES

QUALITY AND PERFORMANCE DELIVERED

Yale® Y80 Electric Wire Rope Hoists are ideal for almost any lifting application up to five tons. These hoists offer an easy-to-maintain, modular design with a wide range of capacities, lifts, hoist speeds, and control options that allow you to select the ideal model for your application. This line of hoists features true vertical lift up to two tons and hoists suitable for Class 1 and Class 2 div lifts up to three tons. The Y80 also provides reliable operation, high efficiency, and long service life to help increase productivity and uptime.

A compact design and close end approach allow for a high hook lift and optimal performance in spaces where overhead space is limited. Y80 hoists also maximize hook coverage within an existing facility, hanging near the wall or in tight spaces, providing efficiency without sacrificing safety and reducing or even eliminating the need for expensive facility remodels or rebuilds. The Y80 is available in single- or double-reeved configurations to suit your application needs. Spark-resistant models are also available for heavy-duty applications, hazardous environments, or extreme environmental conditions.



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ELECTRIC WIRE ROPE HOISTS

Precision-built and designed for virtually any lifting application, Yale Y80 wire rope hoists deliver safety, reliability, and efficiency to your lifting application— even those with low-headroom requirements.

Capacities:
½ to 5 tons

Lift:
20 to 50 feet

Lifting Speeds:
Electric: 9 to 50 FPM
Air: 7 to 33 FPM

Primary AC Voltage:
230/460-3-60

Control Voltage:
115VAC

FEATURES AND BENEFITS

LONG HOIST LIFE

- Precision-machined steel frame welded in one piece for long life and accurate bearing and component alignment
- Plow steel, pre-formed cable ensures maximum rope strength
- Machined rope drum features deep-grooved, large-diameter construction to help prevent damage or weakening of the rope
- Triple reduction helical/spur gearing operates in an oil-bath lube for smooth movement and efficiency, promoting long gear life
- Low-friction bearings ensure long-lasting hoist drive train

SMOOTH, PRECISE MOVEMENT

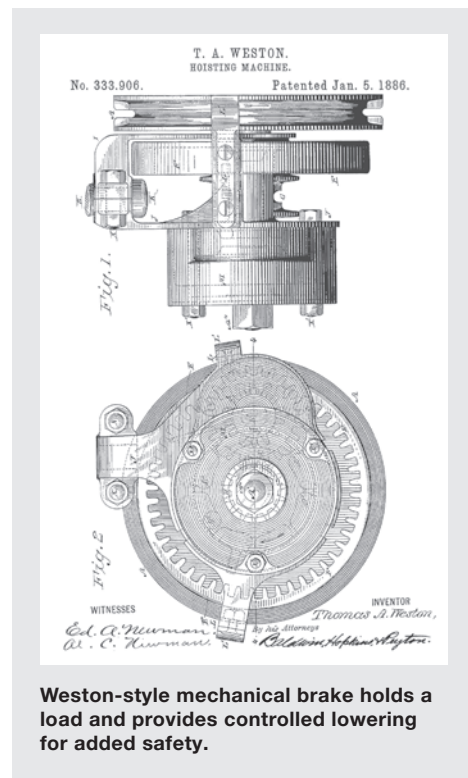
- Heavy-duty, high-torque hoist motor ensures smooth lifting and long hoist life
- Precision-machined gearing ensures uniform tooth mesh and large contact surface
- Triple reduction helical/spur gearing operates in a totally enclosed oil-bath-lubricated gear case for maximum gear life

INCREASED SAFETY

- One-handed pendant pushbuttons ensure easy control of all motions
- Shrouded lower block enhances hand safety, preventing pinched fingers. Hooks are provided with spring-loaded safety latches.
- Block-operated upper limit stops controls' upward travel to prevent the block from hitting the hoist
- Internal Weston load brake

LIGHTWEIGHT, RUGGED CONSTRUCTION

- Alloy aluminum encasement for gear case and cover for a rugged, durable foundation yet lightweight for lifting efficiency
- Full swiveling, heat-treated forged steel hook with spring-loaded latch for use in harsh environments
- Improved steel, pre-formed cable for increased reliability and long service life
- Anti-friction bearings throughout for increased durability in harsh environments



Weston-style mechanical brake holds a load and provides controlled lowering for added safety.



EASY-TO-MAINTAIN DESIGN

- Open layout maximizes performance and ease of maintenance
- Oversized contactors for increased life
- Panels housed in dust-resistant compartment designed for easy access and serviceability
- Oil level plug enables easy monitoring of oil life and predictive maintenance
- External strain reliever cable extends cable life and prevents pulling the control cable from the hoist electrical connection on four-button and larger stations

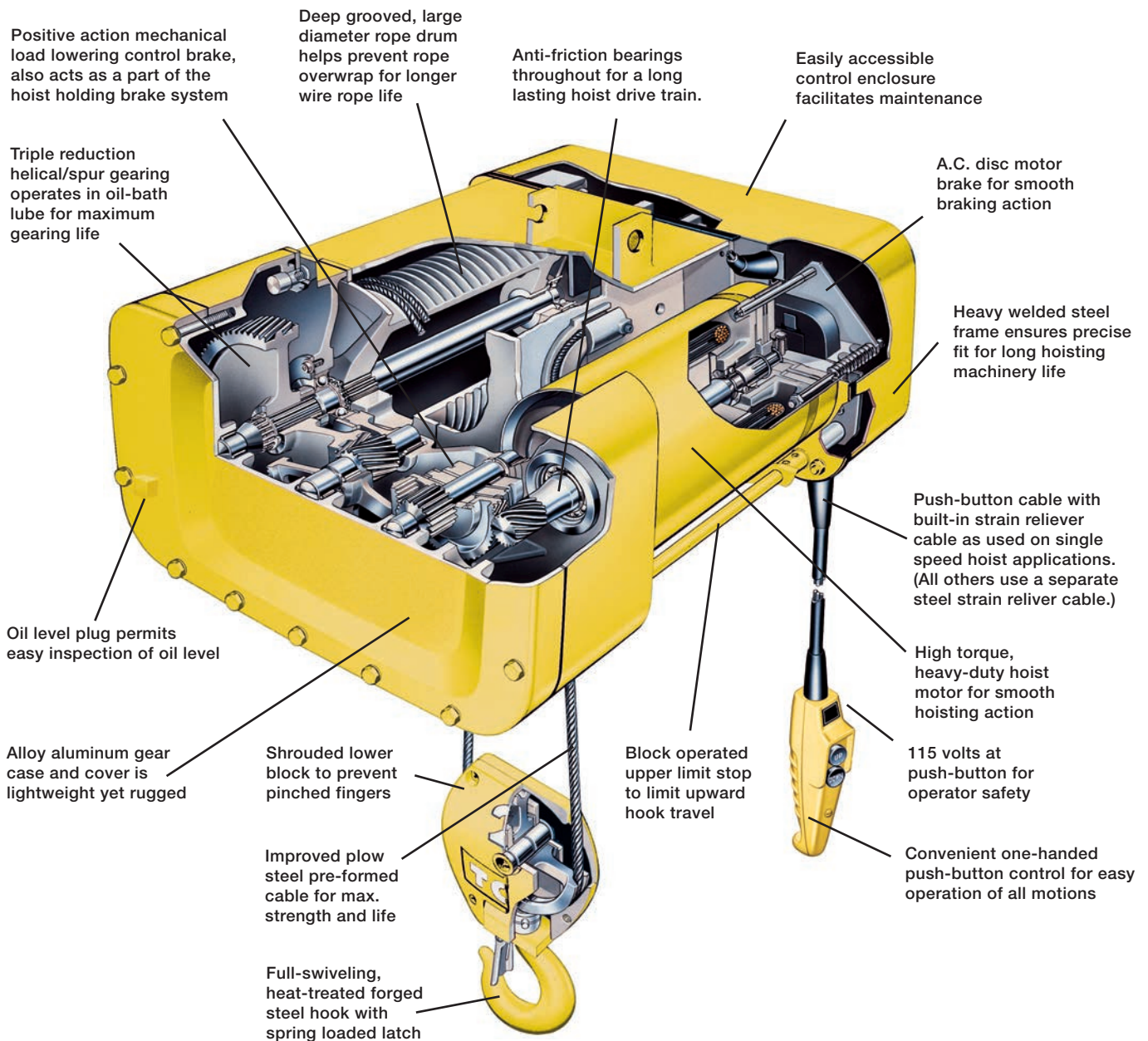
PRECISION BRAKING SYSTEM

- DC disc motor brakes provide smooth, reliable, and precise braking action
- Positive action, mechanical load lowering control brake acts as part of the hoist holding brake system to control load speed and prevent free fall for increased safety of the operator and load
- On VFD models, the motor brake acts only as a holding brake

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THE ANATOMY OF THE Y80 WIRE ROPE HOIST



STANDARD FEATURES

Standard Features	
Ambient Temperature	14°F to 104°F (-10°C to 40°C)
Hoist & Trolley Protection	ANSI B30.16, CMAA 70, CMAA 74, NFPA 70
Voltage	230/460V-3-60, 208V-3-60 2HP only
Control Voltage	115 VAC standard, 24VDC optional
Third-Party Labeling	Motors cCSAus / Control panel UL508A optional
Warranty	1 year
Hoist	
Reeving	Single – 2PS, 4PS, 6PS; Double – 4PD
Hoist Speed Control	1-speed, Optional VFD 2-speed infinitely variable or 2-speed preset (Magnetek VFDs)
Control Enclosure	NEMA 3R, NEMA 4/4X/12, NEMA 7/9
Electrical Overload Protection	Optional: thermal overload and/or fuses
Geared Limit Switch	Optional
Hoist Motor	30-minute rated TENV
Hoist Motor Brake	150% nominal torque, disc, Line VAC
Hoist Drum	Machined steel
Hoist Gearing	Triple reduction, helical/spur
Bearings	Anti-friction, all sealed for life
Hook Assembly	Thrust bearing, 360-degree rotation
Trolley	
Types	Hook mount (double reeved only), push trolley, hand geared, lug mount, base mount, motorized trolley, swivel trolley on double lug models
Trolley Control	Single-speed, Optional: 2-speed contactor, VFD 2-speed infinitely variable or 2-speed preset
Travel Motor Speed 60 Hz	MDT01 – 25, 50, 75, 100, 150 FPM MDT02 – 30, 40, 60, 80, 120 FPM MDT03 – 25, 40, 50, 75, 100 FPM MDT06 – 25, 50, 80, 100 FPM
Bumpers & Drop Lugs	Standard included on motorized trolleys, optional on push and geared trolleys
Trolley Motor	30-minute rated TENV
Trolley Brake	Optional AC disc
Trolley Gearing	Worm
Temperature Control of Travel Motors	Standard TAS
Wheel Material	Steel as standard; Optional bronze, stainless steel

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OPTIONAL FEATURES

Radio Remote Controls	Magnetek-brand Flex EX2 series of radio remote controls available in 4- or 6-button configurations
Patented Track Wheels	Packages available for flange width of 3 1/4"
Motor and Panel Heaters	Optional: Electrical enclosures in combination with anti-condensation heaters prevent entry of dust and water.
Epoxy Paint	For indoor applications, water-based epoxy primer and finish available in Yale yellow. For outdoor applications, solvent-based epoxy primer and finish available in yellow.
Over Capacity Lift Protection	Mechanical Weight Watcher overload device available (set at 125% to 175% of the hoist rated capacity).
Warning Lights & Horns	Requires NEMA 4 Enclosure. Specify mode of activation and by which motion if automatic.

MODELS AND TROLLEY CONFIGURATIONS

Single Reeved	
<p>Single reeving is standard. Reeving is based on capacity and lift speed.</p>	<p>2/1 4/1 6/1</p>
Standard Reeving	
Double Reeved	
<p>True vertical lift: double-grooved rope drum (right-/left-hand thread)</p>	<p>4/2</p>
True Vertical Lift	

SPECIAL CONFIGURATIONS

Air Hoist Models	
<ul style="list-style-type: none"> • Capacities: 1, 2, 3, and 5 tons • Lift: 12 to 45 feet • Lifting Speeds: 7 to 75 FPM • Air Usage: 110-125 SCFM @ 90 PSI <p>When compressed air is available, air hoist models with spark-resistant features are an ideal alternative to electric hazardous location hoists.</p>	
Hazardous Location Models	
<p>In addition to normal operating conditions, Y80 hoists can be customized for operation in hazardous locations with specialized motors, brakes, limit switches, pendant pushbutton stations, and control enclosures.</p>	
Spark-Resistant Models	
<p>Spark-resistant alloys are incorporated into key components, including hooks, lower blocks, wheels, and stainless-steel wire rope, to meet the needs of applications in potentially hazardous locations.</p>	
Outdoor Models	
<p>Rain covers protect the hoist on outdoor configurations for hoist and end truck motors. Stainless steel NEMA 4X enclosures and hardware are available for outdoor use on hoist, trolley, and bridge motions.</p>	

Y80 wire rope hoists can also be configured to negotiate curved beams. Consult the factory for more information.

SUSPENSION OPTIONS



Lug Mount

Permanently mount to a beam or ceiling by bolting to a hoist trolley or overhead girder



Hook Mount

Trolley mount with a top hook*



Push Trolley

Push lighter loads or chain block over short distances



Hand Geared

Ideal for smooth movement along a fixed beam or track



Motor Driven

Move heavy loads along an overhead beam or rail

*Available on select double reeved models only.



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HOIST CONTROL OPTIONS

Three hoist control configurations are available to fit your exact Y80 electric wire rope hoist needs. With these control options, you can integrate additional safety features, improve the ability to make system adjustments as needed, and increase overall operation.

- **Single Speed:** For simple operation and available for use in a wide variety of applications, single-speed operation can be initiated with the push of a button.
- **NEW 2-Speed Preset:** Simulating a 2-speed, contactor-controlled hoist, this new control option incorporates Magnetek-brand variable frequency controls. Now, you can gradually ramp up to two set speed options and halt motion at any time with a smooth ramp down. 2-speed preset is ideal for use in retrofit applications where loads need to move quickly over longer distances, and in instances where more precise positioning is needed.
- **2-Speed Infinitely Variable:** Speed is controlled in small increments with Magnetek-brand variable frequency drives, enabling the most precise, accurate load positioning. Plus, this control option features extremely smooth starting and braking with controlled starts and stops for extended brake life.



HARNESS THE POWER OF MAGNETEK® CONTROL TECHNOLOGY

Leverage the industry-leading technology of our Magnetek-brand IMPULSE® Variable Frequency Drives (VFDs). When Y80 is paired with an optional Magnetek VFD, you gain the ability to continuously monitor many environmental and functional parameters of the hoist, such as motor temperature, end of travel and slow down limits, brake functionality, motor speed, and more. This valuable data can help extend the life of your hoist, reduce downtime, and assist with predicting maintenance concerns before they occur. These variable frequency drives also maintain safe functional thresholds, which decreases mechanical fatigue and increases reliability and uptime.



**The
Drive
Inside**

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Y80 WIRE ROPE HOISTS IN ACTION

Yale brand products are known for their high quality and performance around the world, and Y80 wire rope hoists are no exception. Ideal for use in tight applications with limited overhead space availability, spark-resistant options, and high-tech control and monitoring technology from Magnetek, the Y80 is well-suited for a wide variety of industries and applications, including:

WATER MANAGEMENT

Pump lifting is a precise and demanding task in wastewater treatment facilities. Yale Y80 wire rope hoists are designed to handle heavy lifts with pumps often weighing between 3 and 4 tons. These hoists are typically mounted to monorail beams, facilitating efficient and safe lifting operations directly above the pumps. The difference between wire rope and chain hoists is significant; wire rope hoists, such as Y80, are preferred for their efficiency and capability to handle longer lifts without overheating — a common limitation with chain hoists. The true vertical lift feature, available up to 2-ton capacity, of these wire rope hoists is crucial for maintaining the alignment of the pump as it is lowered or raised, ensuring precise and safe handling.

Y80 wire rope hoists are particularly suitable for old and compact pump stations found in municipal environments. These stations, sometimes located in unheated and explosion-risk areas, require robust and explosion-proof equipment. Yale Y80 meets these requirements, making them ideal for municipal wastewater applications. Integrating these hoists within a system that supports their strengths is essential to maximize their effectiveness.





POWER & UTILITIES

Compressor stations are an essential part of the natural gas pipeline system, helping to maintain flow and pressure of the gas as it moves from well sites to end users. These stations receive gas from the pipeline, re-pressurize it, and send it back into the pipeline system. Y80 wire rope hoists can be useful in maintaining and repairing these compressor stations.

Routine monitoring, adjustments, and other maintenance are needed to sustain optimal gas flow and minimize emissions or leakages in this portion of the pipeline. Compressors, valves, connections, and other components can all require repair or replacement due to mechanical and thermal stressors. The Yale Y80 is ideal for this type of environment due to its compact design and close end approach that allow for a high hook lift and optimal performance in spaces where overhead space is limited. Y80 hoists also maximize the hook coverage within the existing facility, hanging near the wall or in tight spaces, providing efficiency without sacrificing safety. Plus, due to the presence of natural gas, Y80 can be configured with spark-resistant and explosion-proof components to meet the needs of this potentially hazardous environment.

GENERAL MANUFACTURING

Jib cranes are an ideal solution for areas where adequate headroom and structural support does not exist. They can be used to supplement regular traveling or monorail track or used in bays and along the walls or the sides of shops. Plus, operators can utilize a complete workspace without losing any ergonomic benefits when using jib cranes. Pairing Unified Industries jib cranes with Y80 wire rope hoists can add reliability and efficiency to your lifting application in all types of manufacturing facilities. You'll get all components from the same source, making installation and troubleshooting quick and easy.



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MODEL SPECTRUM

Catalog No.	Capacity	Reeving	Lift	Speed	Motor Hp	No. Ropes - Dia
†80††.5-025S18-†††	0.5	Sgl Reeved	25	18	2	2-1/4
†80††.5-025S35-†††	0.5	Sgl Reeved	25	35	2	2-1/4
†80††.5-025S50-†††	0.5	Sgl Reeved	25	50	4	2-1/4
†80††.5-050S18-†††	0.5	Sgl Reeved	50	18	2	2-1/4
†80††.5-050S35-†††	0.5	Sgl Reeved	50	35	2	2-1/4
†80††.5-050S50-†††	0.5	Sgl Reeved	50	50	4	2-1/4
†80††.5-018D18-†††	0.5	Dbl Reeved	18	18	2	4-3/16
†80††.5-018D35-†††	0.5	Dbl Reeved	18	35	2	4-3/16
†80††.5-018D50-†††	0.5	Dbl Reeved	18	50	4	4-3/16
†80††.5-034D18-†††	0.5	Dbl Reeved	34	18	2	4-3/16
†80††.5-034D35-†††	0.5	Dbl Reeved	34	35	2	4-3/16
†80††.5-034D50-†††	0.5	Dbl Reeved	34	50	4	4-3/16
†80††.5-047D18-†††	0.5	Dbl Reeved	47	18	2	4-3/16
†80††.5-047D35-†††	0.5	Dbl Reeved	47	35	2	4-3/16
†80††.5-047D50-†††	0.5	Dbl Reeved	47	50	4	4-3/16
†80††01-025S18-†††	1	Sgl Reeved	25	18	2	2-1/4
†80††01-025S28-†††	1	Sgl Reeved	25	28	2	2-1/4
†80††01-025S50-†††	1	Sgl Reeved	25	50	4	2-1/4
†80††01-050S18-†††	1	Sgl Reeved	50	18	2	2-1/4
†80††01-050S28-†††	1	Sgl Reeved	50	28	2	2-1/4
†80††01-050S50-†††	1	Sgl Reeved	50	50	4	2-1/4
†80††01-018D18-†††	1	Dbl Reeved	18	18	2	4-3/16
†80††01-018D28-†††	1	Dbl Reeved	18	28	2	4-3/16
†80††01-018D50-†††	1	Dbl Reeved	18	50	4	4-3/16
†80††01-034D18-†††	1	Dbl Reeved	34	18	2	4-3/16
†80††01-034D28-†††	1	Dbl Reeved	34	28	2	4-3/16
†80††01-034D50-†††	1	Dbl Reeved	34	50	4	4-3/16
†80††01-047D18-†††	1	Dbl Reeved	47	18	2	4-3/16
†80††01-047D28-†††	1	Dbl Reeved	47	28	2	4-3/16
†80††01-047D50-†††	1	Dbl Reeved	47	50	4	4-3/16
†80††02-020S14-†††	2	Sgl Reeved	20	14	2	2-5/16
†80††02-020S28-†††	2	Sgl Reeved	20	28	4	2-5/16
†80††02-040S14-†††	2	Sgl Reeved	40	14	2	2-5/16
†80††02-040S28-†††	2	Sgl Reeved	40	28	4	2-5/16
†80††02-014D14-†††	2	Dbl Reeved	14	14	2	4-1/4
†80††02-014D28-†††	2	Dbl Reeved	14	28	4	4-1/4
†80††02-025D14-†††	2	Dbl Reeved	25	14	2	4-1/4
†80††02-025D28-†††	2	Dbl Reeved	25	28	4	4-1/4
†80††02-036D14-†††	2	Dbl Reeved	36	14	2	4-1/4
†80††02-036D28-†††	2	Dbl Reeved	36	28	4	4-1/4
†80††03-030S09-†††	3	Sgl Reeved	30	9	2	4-5/16
†80††03-030S18-†††	3	Sgl Reeved	30	18	4	4-5/16
†80††03-045S09-†††	3	Sgl Reeved	45	9	2	4-5/16
†80††03-045S18-†††	3	Sgl Reeved	45	18	4	4-5/16
†80††05-020S10-†††	5	Sgl Reeved	20	10	4	6-5/16
†80††05-030S10-†††	5	Sgl Reeved	30	10	4	6-5/16

MODEL SPECTRUM CONTINUED

Lug Headroom	Trolley Headroom	Lug Weight	Push Weight	Hand Geared Wt.	Motorized Wt.
21-3/4	22-15/16	190	213	230	260
21-3/4	22-15/16	190	213	230	260
21-3/4	22-15/16	215	238	255	291
21-3/4	22-11/16	220	263	280	385
21-3/4	22-11/16	220	263	280	385
21-3/4	22-11/16	245	288	305	416
21-3/4	22-15/16	190	213	230	260
21-3/4	22-15/16	190	213	230	260
21-3/4	22-15/16	215	238	255	291
21-3/4	22-15/16	220	263	280	385
21-3/4	22-15/16	220	263	280	385
21-3/4	22-15/16	245	288	305	416
22-3/4	23-15/16	220	263	280	385
22-3/4	23-15/16	220	263	280	385
22-3/4	23-15/16	360	500	550	591
21-3/4	22-15/16	190	213	230	266
21-3/4	22-15/16	215	238	255	291
21-3/4	22-15/16	215	238	255	291
21-3/4	22-11/16	220	263	290	385
21-3/4	22-11/16	250	293	310	415
21-3/4	22-11/16	250	293	310	415
21-3/4	22-15/16	190	213	230	266
21-3/4	22-15/16	215	238	255	291
21-3/4	22-15/16	215	238	255	291
21-3/4	22-15/16	220	263	290	385
21-3/4	22-15/16	250	293	310	415
21-3/4	22-15/16	250	293	310	415
22-3/4	23-15/16	305	445	530	495
22-3/4	23-15/16	335	475	560	525
22-3/4	23-15/16	335	475	560	525
24-5/16	24-7/16	220	263	280	385
24-5/16	24-7/16	220	263	280	385
24-5/16	24-7/16	245	288	305	410
24-5/16	24-7/16	245	288	305	410
22-3/8	23-5/16	220	263	280	385
22-3/8	23-5/16	220	263	280	385
22-3/8	23-5/16	245	288	305	410
22-3/8	23-5/16	245	288	305	410
23-1/4	24-7/16	335	475	525	560
23-1/4	24-7/16	335	475	525	560
26	27-3/16	310	450	500	535
26	27-3/16	335	475	525	560
26-7/8	28-1/16	500	680	725	730
26-7/8	28-1/16	525	705	750	755
27-3/4	29-1/16	370	510	560	595
27-3/4	29-1/16	545	825	875	910



LIFTING SOLUTIONS



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