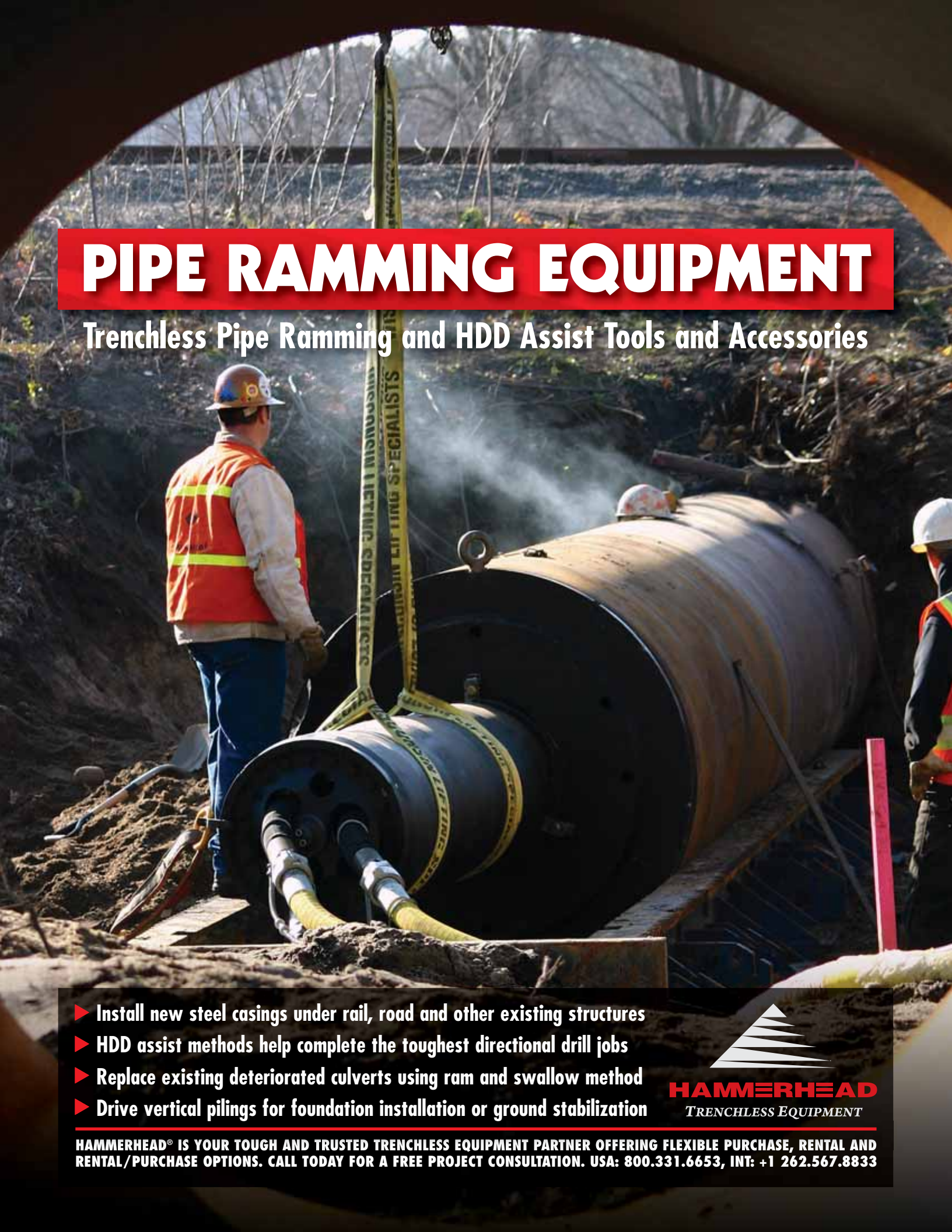


PIPE RAMMING EQUIPMENT

Trenchless Pipe Ramming and HDD Assist Tools and Accessories



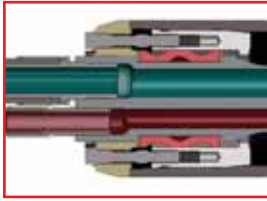
- ▶ Install new steel casings under rail, road and other existing structures
- ▶ HDD assist methods help complete the toughest directional drill jobs
- ▶ Replace existing deteriorated culverts using ram and swallow method
- ▶ Drive vertical pilings for foundation installation or ground stabilization



HAMMERHEAD
TRENCHLESS EQUIPMENT

HAMMERHEAD® IS YOUR TOUGH AND TRUSTED TRENCHLESS EQUIPMENT PARTNER OFFERING FLEXIBLE PURCHASE, RENTAL AND RENTAL/PURCHASE OPTIONS. CALL TODAY FOR A FREE PROJECT CONSULTATION. USA: 800.331.6653, INT: +1 262.567.8833

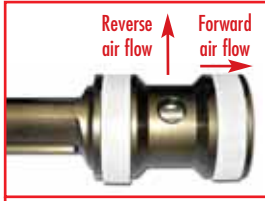
THE TOUGHEST, MOST TRUSTED RAMMERS IN THE WORLD.



Secure, patented clamped rear anvil prevents assembly failure



Wear rings increase tool performance and durability



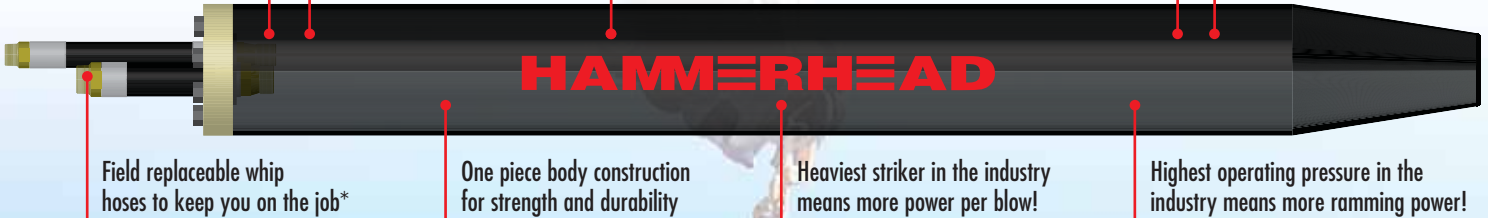
Dependable true air reverse controlled above ground



Full line of pipe ramming and HDD assist accessories



Pushing collets and convenient collet lifters



Field replaceable whip hoses to keep you on the job*

One piece body construction for strength and durability

Heaviest striker in the industry means more power per blow!

Highest operating pressure in the industry means more ramming power!

FEATURE

BENEFIT

True Air Reverse

Powerful and reliable true air reverse technology is controlled above ground preventing internal mechanism failure that is common in competitors' tools. All HammerHead tools have a reverse feature that simplifies tool removal from pushing collets unlike other tools in the market that require violently striking the exterior of the tool with the extreme force of an excavator bucket.

Clamped Rear Anvil

Provides for fast and easy field maintenance, the hallmark of all HammerHead ramming tools. This patented secure joint prevents rear assembly failure common in competitive designs that both damages the tool and halts production.

Pushing Collets and Collars

The exclusive HammerHead collet and collar system locks the rammer into the casing eliminating the need for support cradles. This exclusive design also helps to distribute the impact of the rammer evenly which reduces casing flaring which is common to competitive tapered cone designs.

Wear Rings

Eliminates internal metal to metal contact, decreasing wear while offering high performance.

Accessories

A wide variety of pipe ramming accessories are available to make your job more efficient including; lubrication systems, seal kits, balanced collet lifters, pipe pigs and ram collars.

Versatility

Designed for pipe ramming, culvert replacement, multiple HDD assist methods, piling installation or driving piling and pipe bursting projects.

HAMMERHEAD DELIVERS ULTIMATE PERFORMANCE TO BOTH THE EVERYDAY AND THE MOST EXTREME JOB SITES.



SWALLOW LARGE COBBLE, ROCKS & OTHER MATERIALS!

Pipe ramming is the method of choice in cobble or free flowing soil conditions. Compared to conventional methods, pipe ramming cuts down on set-up time and offers lower equipment costs and reduced maintenance costs.

In cobble, rammed pipe can swallow the material whole including large rocks and cobble, keeping the casing size to a minimum and saving cost on the job.

In free flowing soils, the material is not removed until after the casing is installed, reducing risk of creating voids.

TRUST EXPERIENCED HAMMERHEAD ENGINEERS AND PRODUCT SUPPORT SPECIALISTS TO EVALUATE YOUR NEXT PROJECT

ONE RAMMER, SO MANY DIFFERENT APPLICATIONS.

CONVENTIONAL PIPE RAMMING METHOD



Pipe Ramming is an excellent, cost efficient method for placing steel casing under roads, railroads, finished landscapes and structures. The casing is installed open ended and cleaned out after installation is complete.

SLICK BORING METHOD



After installing a bore pipe using the conventional pipe ramming method, a new product pipe is pulled in using the pipe extraction method. This method is commonly used when specifications call for little or no impact on the carrier pipe weldments.

CULVERT SWALLOWING METHOD



Replace deteriorating or over capacity culverts without disruption to roads, railroads, and other structures. Ram a steel casing over the existing culvert and clean out to complete the installation.

PILING/PIPE DRIVING METHOD



HammerHead rammers are a cost effective means to drive steel casings vertically, creating foundations or ground stabilization pilings.

PULLBACK ASSIST METHOD



Free up hydro-locked or immovable pipe. The rammer is attached to product pipe during pullback and impact force assists HDD pullback to complete long and difficult projects.

PIPE EXTRACTION METHOD



Recover your product pipe using the extraction method. The impact force of the rammer is combined with static pullback to extract product pipe so you can save expensive pipe and bore again.

WASHOVER CASING METHOD



Start your job off right in tough conditions. Casings are rammed through difficult soil conditions to more desirable drill starting points. Provides a path for recycling of drill fluids. Provides friction free section for product pullback.

DRILL STEM RECOVERY METHOD



HammerHead rammers can recover expensive stuck drill stems. The rammer is attached to drill stem with a fabricated adapter. Impact force of the rammer combined with static pullback is used to extract stuck drill stems. Expensive drill stem is recovered.

EXPERIENCED ON THE WORLD'S TOUGHEST JOB SITES.

ROCKVALE, MINNESOTA, USA



Project: New culvert under Burlington Northern Rail track
Specifications: 30" & 60" steel casing
Equipment: 24" pipe ramming hammer

NORMANGEE, TEXAS, USA



Project: Pullback assist – gas pipeline installation
Specifications: 2,800' of 36" casing
Equipment: 24" pipe ramming hammer

MAXWELL CREEK, WASHINGTON, USA



Project: Williams Gas Pipeline-West (natural gas main)
Specifications: 349' of 42" casing
Equipment: 24" pipe ramming hammer

MA WAN CHANNEL, HONG KONG, CHINA



Project: Washover casing installation for HDD assist
Specifications: 2 – 54" casings 66' at a 20° angle
Equipment: 24" pipe ramming hammer

MORDEN, MANITOBA, CANADA



Project: Slick bore – Bannister oil pipeline project
Specifications: 360' of 36" steel casing
Equipment: 24" pipe ramming hammer

CARACAS, VENEZUELA



Project: Pipe bridge culvert under military runway
Specifications: 26 rams of 24" steel pipe 60 meters each
Equipment: 16" and 24" pipe ramming hammers

HAMMERHEAD RAMMING HAMMER EQUIPMENT SPECIFICATIONS

Model	Diameter in (mm)	Length in (cm)	Weight lb (kg)	Air cfm (m3/min)	Tailbolt Access	Pressure psi (bar)	Reverse	Blows Per Min.	Rec. Pipe Ram Size in (cm)**	Rec. HDD Assist Drill Class
4" (98) RH SR	3.88 (98)	63.95 (162.4)	136 (62)	68 (1.9)	6	110 (7.6)	7 turns	370	2-4 (5-10)	n/a
5.125" (130) SR	5.13 (130)	65.92 (167.4)	214 (97)	98 (2.8)	8	110 (7.6)	7 turns	333	4-8 (10-20)	n/a
5.5" (140) SR †	5.50 (140)	63.95 (162.4)	170 (77)	68 (1.9)	6	110 (7.6)	7 turns	370	2-4 (5-10)	n/a
5.75" (145) SR	5.75 (145)	79.5 (201.9)	305 (138)	132 (3.7)	8	110 (7.6)	9 turns	300	6-12 (10-30)	n/a
7" (180) AR	7.00 (180)	81.0 (205.7)	511 (232)	235 (6.7)	8	110 (7.6)	Air Reverse	295	8-20 (15-50)	24K
8" (200) AR	8.00 (200)	105.0 (266.7)	900 (408)	308 (8.7)	12	110 (7.6)	Air Reverse	223	8-24 (20-60)	24-50K
12 (300) AR	12.00 (300)	91 (231.4)	1,568 (711)	600 (17.0)	16	110 (7.6)	Air Reverse	256	12-30 (30-75)	33-80K
16 (400) AR	16.00 (400)	97 (245.1)	2,701 (1,225)	1,050 (29.7)	20	110 (7.6)	Air Reverse	231	16-48 (30-120)	80K
20 (500) AR	20.00 (500)	108.4 (275.3)	5,750 (2,608)	1,290 (36.5)	24	110 (7.6)	Air Reverse	190	20-54 (50-140)	80-150K
24 (600) AR	24.00 (600)	117 (295.9)	9,831 (4,459)	1,700 (48.1)	20	110 (7.6)	Air Reverse	177	24-72 (60-180)	150K and Larger

*12" and 24" Tools are not field replaceable. **Maximum ramming lengths vary based on pipe diameter installed, ground conditions and ramming tool used to install the pipe.

†Bulbed tool. Contact your HammerHead representative for more detailed tool vs. ram length information. RH—Replaceable Head, SR—Screw Reverse, AR—Air Reverse.

CALL 800.331.6653 FOR A FREE PROJECT CONSULTATION TODAY.

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