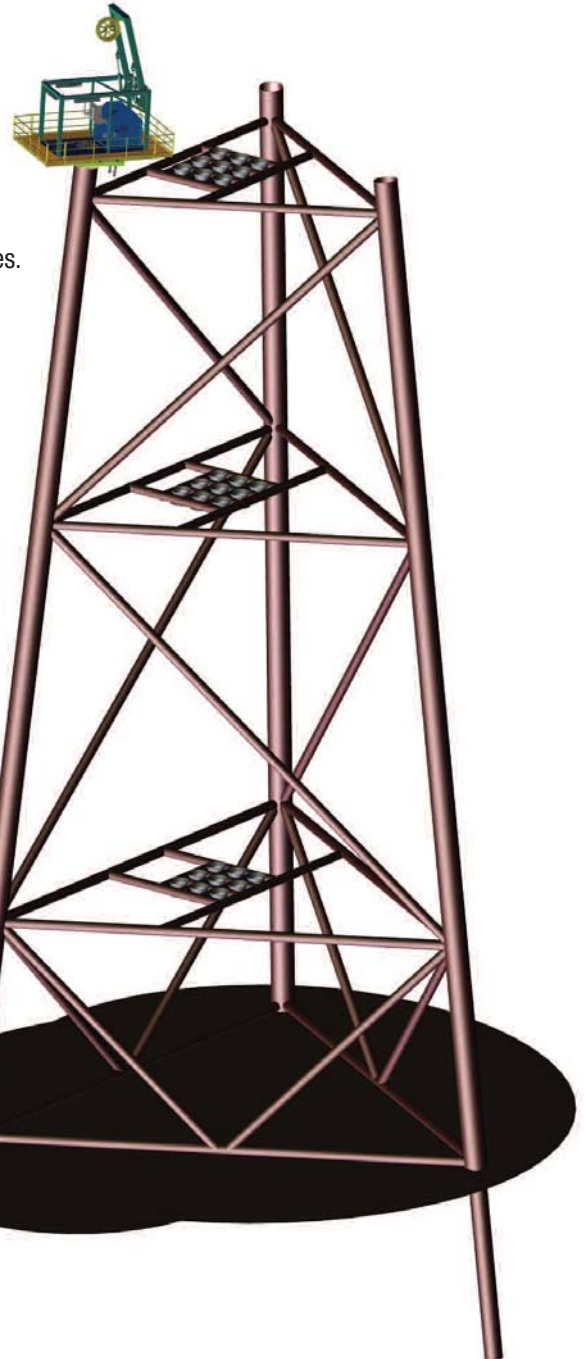


## Internal Cutting of Piles

The Internal Cutting Tool (ICT) is based on NCA's powerful Abrasive Water Jet Cutting (AWJC) and is ideal for efficient cutting of piles from the inside. The AWJC method uses a high-energy jet of water-borne abrasive particles to cut even the hardest steel alloys quickly and safely. The ICT produces a clean, even cut, which makes it easy to lift the jacket. The cut is verified by using hydrophones.

The modular system can be mobilized quickly and is easy to rig up and operate on-site. Each system consists of a pump, abrasive mixing unit, umbilical reel, Internal Cutting Tool (ICT) and control cabin. Because hose length between the mixing unit and cutting nozzle is essentially unlimited, the mixing unit and pump can be placed in any suitable location giving a flexible deck layout. The ICT can be deployed by a crane or by use of the NCA Pile Top Deployment System.



### Applications

- Cutting of piles from the inside below the mud line
- Cutting of caissons from the inside
- Cutting of jacket legs from the inside

### Features and Benefits

- Three machines can internally cut any pile sizes from 24" to 90"
- Produces a clean and even cut
- Environmentally friendly and eliminates use of explosives
- Capable of cutting multiple piles at one time
- Superior cutting speed – typically less than one hour per cut
- Cut verification by using hydrophones
- Computer based control and monitoring system



## Specifications

Cutting medium	Water (salt or fresh water) and environmentally friendly abrasives
Pressure	500-2,000 bar / 7,000-30,000 psi
Water flow rate	30-120 lpm / 8-32 gpm
Utility requirements from vessel/platform (typ.)	Sea water (120 lpm / 32 gpm @ 2 bar / 30 psi) Fresh water for cleaning Crane (15T capacity) and rigging assistance for handling of equipment Electric power (110 V and 220 V) Work air
Deck space requirement	Approximately 60 sqm / 600 sqf



## Available Versions

Equipment	Pile dimensions	Tool weight	Tool dimensions
ICT 2436	24" to 36"	970 kg 2138 lbs	L:3.6 OD:0.46 m L: 142 OD: 18 in
ICT 3660	36" to 60"	1,600 kg 3,307 lbs	L: 3.6 OD:0.73 m L:142 OD:29 in
ICT 6090	60" to 90"	2,100 kg 4,630 lbs	L:4.2 OD:1.4 m L:165 OD:56 in

Other versions are available on request



## Typical Equipment List

Equipment	Quant.	Eqt. weight	Dimensions (LBH)
High pressure water pumps	1*	6,800 kg 15,000 lbs	4.3 x 2.0 x 2.5 m 171 x 77 x 99 in
Abrasive Mixer Units (AMU) (item is split during transport)	1*	13,000 kg 28,660 lbs	1.9 x 1.9 x 5.1 m 76 x 76 x 200 in
Internal Cutting Tools (ICT 3660 including transport basket)	2	2,000 kg 4,409 lbs	3.75 x 1.0 x 0.9 m 148 x 39 x 35 in
Hydraulic Power Unit	1	1,500 kg 4,100 lbs	2.6 x 1.2 x 1.6 m 100 x 45 x 62 in
Control and / workshop container	1	4,500 kg 10,000 lbs	4.9 x 2.4 x 2.6 m 192 x 96 x 102 in
Transport basket	1	1,818 kg 4,000 lbs	21 x 0.8 x 0.5 m 85 x 31 x 21 in

\*Backup recommended for larger jobs

## Typical Equipment Layout



### Norse Cutting & Abandonment AS

Hamrasletta 11 ~ 4056 Tananger, Norway  
Tel: +47 51 64 91 00 ~ Fax: +47 51 64 91 20

### Norse Cutting & Abandonment Inc.

5535 Brystone Drive ~ Houston, TX 77041 USA  
Tel: +1 832 327 3640 ~ Fax: +1 832 327 3645

### Norse Cutting & Abandonment Ltd.

Units 1-6 Howemoss Drive ~ Kirkhill Drive  
Dyce-Aberdeen AB21 OGL, Scotland  
Tel: +44 (0) 1224 722555 ~ Fax: +44 (0) 1224 773123