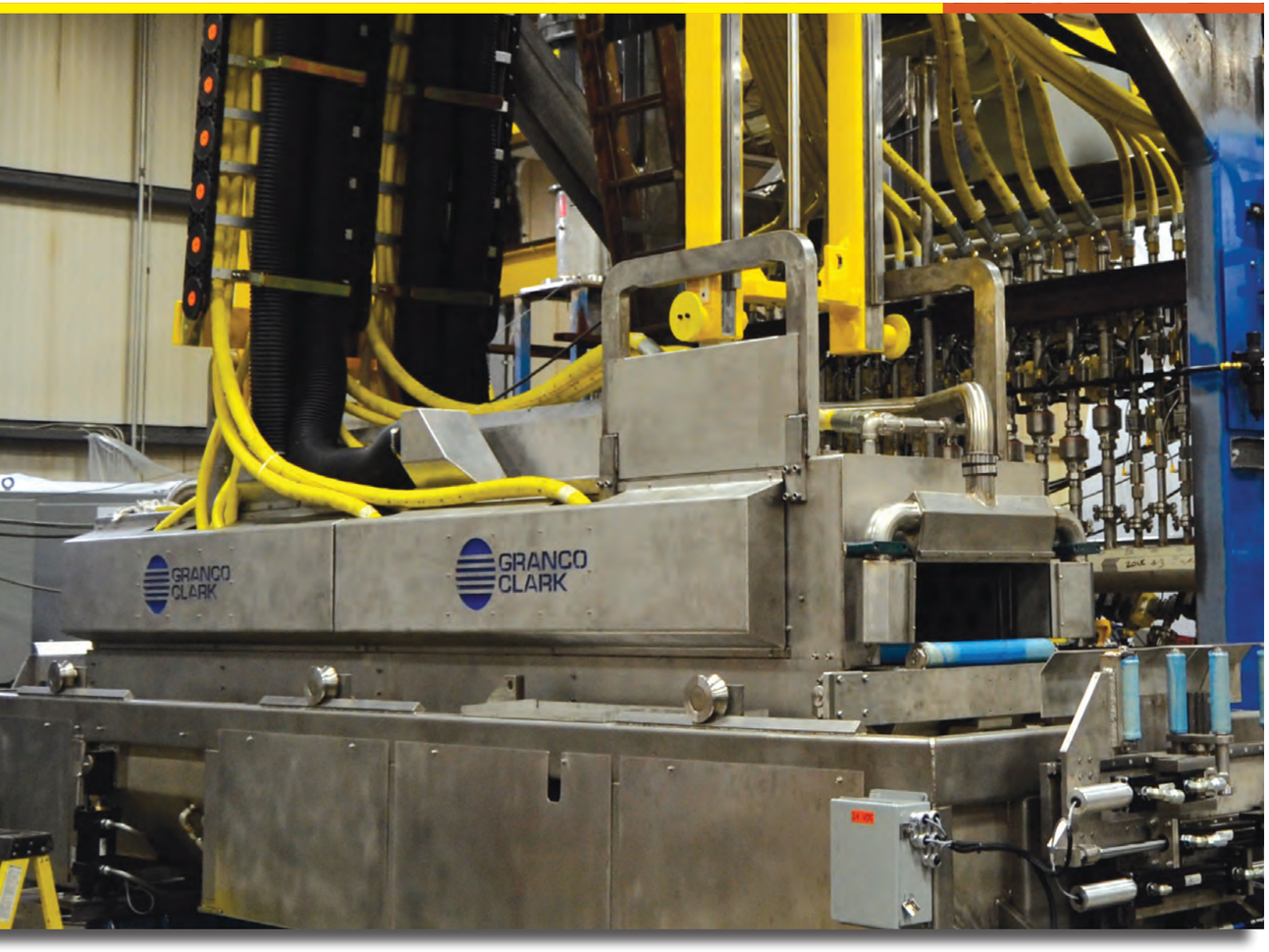
High Impact Velocity Quench



- Unmatched Cooling Rates
- FEA Analyses For Any Shape
- Performance Guaranty
- Eliminate Distortion with Progressive Quenching
- All Stainless Construction
- Crash Profiles

100% USA Supply

AEC Member and Supporter

GRANCO CLARK has been supplying "high impact velocity" quenches since 1985. We documented the underlying science more than a dozen years ago in a seminar paper at the Extrusion Technology Symposium in 2004 *(ET-04)*.

Cooling rate is determined by quench technology and profile thickness. For most crash box sections our systems can provide cooling rates of more than 200°F per second on enclosed hollows *(that is - quenching only the outside of the profile)*.

GRANCO CLARK's High Impact Velocity Quench provides the maximum heat transfer available in a profile quench. Unlike flood quenches, the High Impact Velocity Quench penetrates the steam barrier surrounding the profile and puts water droplets directly on the aluminum. More importantly, the **GRANCO CLARK** High Impact Velocity Quench provides adjustability unlike any other, for a gain in profile quality.

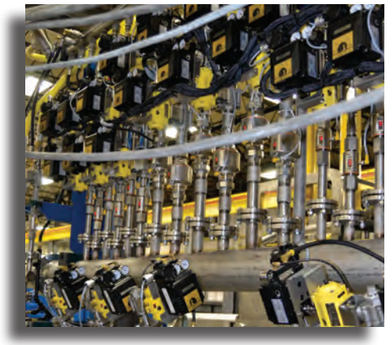
With the **GRANCO CLARK** High Impact Velocity Quench, the speed of the cooling process is greatly increased—in fact, it can provide more than twice the cooling rate of a flood quench and three times the cooling rate of other spray quenches.

First Billet Pull-Through

Profile Quality:
- Uniform
- Efficient cooling

High-Pressure Spray:
- Unmatched heat transfer in a profile quench

- Highest pressure
- Maximum heat transfer available in a profile quench
- Nozzles arranged in adjustable rings, divided into 8 zones (more for larger press sizes)
- High pressure, in-line filtration system removes particles from water
- Scrap preventing dead cycle sequence is available
- Air knives at each quench opening minimize water running down the profile length and water spray entering work area
- All stainless steel construction
- Nozzles are protected from impact
- Penetrates steam barrier, thereby dramatically increasing cooling speeds
- Maximum extrusion speed with minimum space requirements
- Precise cooling control appropriate to profile
- Distortion control
- Recipe system
- Pressure and flow feedback per zone
- Reproducibility of spray patterns
- First billet pull through capability



Fully Assembled and Shop Tested

U.S.A.

Headquarters

7298 N. Storey Road
Belding, MI USA 48809
Phone: +1-616-794-2600
Toll-free: +1-800-918-2600
General fax: +1-616-794-1899
Sales fax: +1-616-794-2878

e-mail: gcinfo@grancoclark.com

Dubai

Dubai, United Arab Emirates

ALTEAM FZE
PO Box 213160
Dubai, United Arab Emirates

Contact: Hovig Karayan
PH +971 (4) 441 9785
FX +971 (4) 421 9737
e-mail: alteam.dubai@gmail.com or
info@alteamfze.com

India

India

Hetpan Overseas
B-407/408, Kailash Esplanade
L.B.S. Margbr Ghatkopar (West)
Mumbai India 400 086
PH +91-22-2500 7038
FX +91-22-2500 7336

Contact: Ketan Sheth
e-mail: ketansheth@hetpan.net
web site: www.hetpan.net

Australia

Australia, New Zealand

Furnace Engineering Pty Ltd
50 Howleys Road
Notting Hill VIC 3168
Australia
PH +61-3 9544 2922
FX +61-3 9544 2723

Contact: Jason Reints
info@furnace.com.au

Brazil

Commerx LTDA

Alameda Ametista, 189
06540225 Santana de Parnaiba, SP,
Brazil
PH/FX +55-11-4152 3610

e-mail: fred@commerx.com.br
web site: www.commerx.com.br

Thailand

Pathakit Company, Ltd

69/131 Moo 5, Bueng Khamproi
Lam Lukka Road, Lam Lukka
Pathumthani, 12150 Thailand
PH +66-2-532 7044
FX +66-2-532 7045

Contact: Saratoon Laisakul
e-mail: saratoon@ksc.th.com

7298 N. Storey Road
Belding, MI 48809

+1-800-918-2600
gcinfo@grancoclark.com | www.grancoclark.com

GRANCO CLARK®

Form: GCB0110316-V2