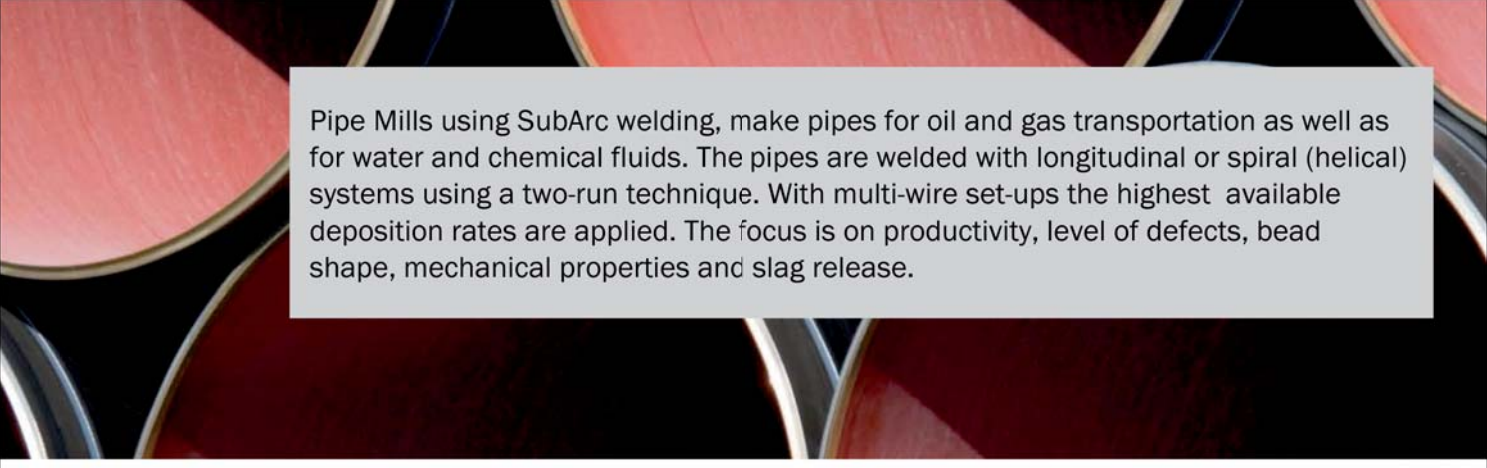
ITW Welding

Miller. HOBART FILLER METALS

Pipe Mills

WELDING & HEATING SOLUTIONS



Pipe Mills using SubArc welding, make pipes for oil and gas transportation as well as for water and chemical fluids. The pipes are welded with longitudinal or spiral (helical) systems using a two-run technique. With multi-wire set-ups the highest available deposition rates are applied. The focus is on productivity, level of defects, bead shape, mechanical properties and slag release.

Miller and Hobart

have decades of experience supporting the pipe mill industry. Miller welding equipment and Hobart welding consumables provide effective SubArc solutions capable of delivering high integrity welds.

Professional technical support ready for you!

A dedicated team aimed at improving your SubArc operations is available for consultation and project cooperation. The support team has access to our pipe welding center where welding procedures are developed, weld problems are solved and weld productivity is improved. Our application experts share their time between practical field support and development work in the pipe welding center.

A unique offering

Process improvements – whether to increase output, reduce rejects or meeting structural requirements – are always profit-boosting initiatives. The SubArc support team will take a look at your SubArc welding processes and together review options for improvements that provides real financial benefits. For SubArc pipe production, the review focuses on obtaining the best available wire set-up, optimization of parameters and the application of ideal fluxes and wires. The results are increased output of defect-free pipes, perfect slag release and meeting the mechanical properties.

Welding equipment

For SubArc automation Miller has partnered with a number of integrators around the world. By using Miller power sources and components first class installations can be created.

Integration

AC/DC power sources with adjustable balance
Single and multi-wire systems
Standard, PLC and PC based control systems
Data recording
Flux handling systems

Welding consumables

Hobart´s first class production units make a wide range of fluxes, solid wires and cored wires for SubArc welding.

Hobart SWX 130 is a flux designed for multi-wire welding of longitudinal pipes.

Flux / wire combination Wire set-up: OD 3+1 and ID 2+1	Charpy V-notch J all weld metal		
	-20°C	-40°C	-60°C
SWX 130 / SDX S2Mo-EA2 / SDX S3MoTiB	210	163	140

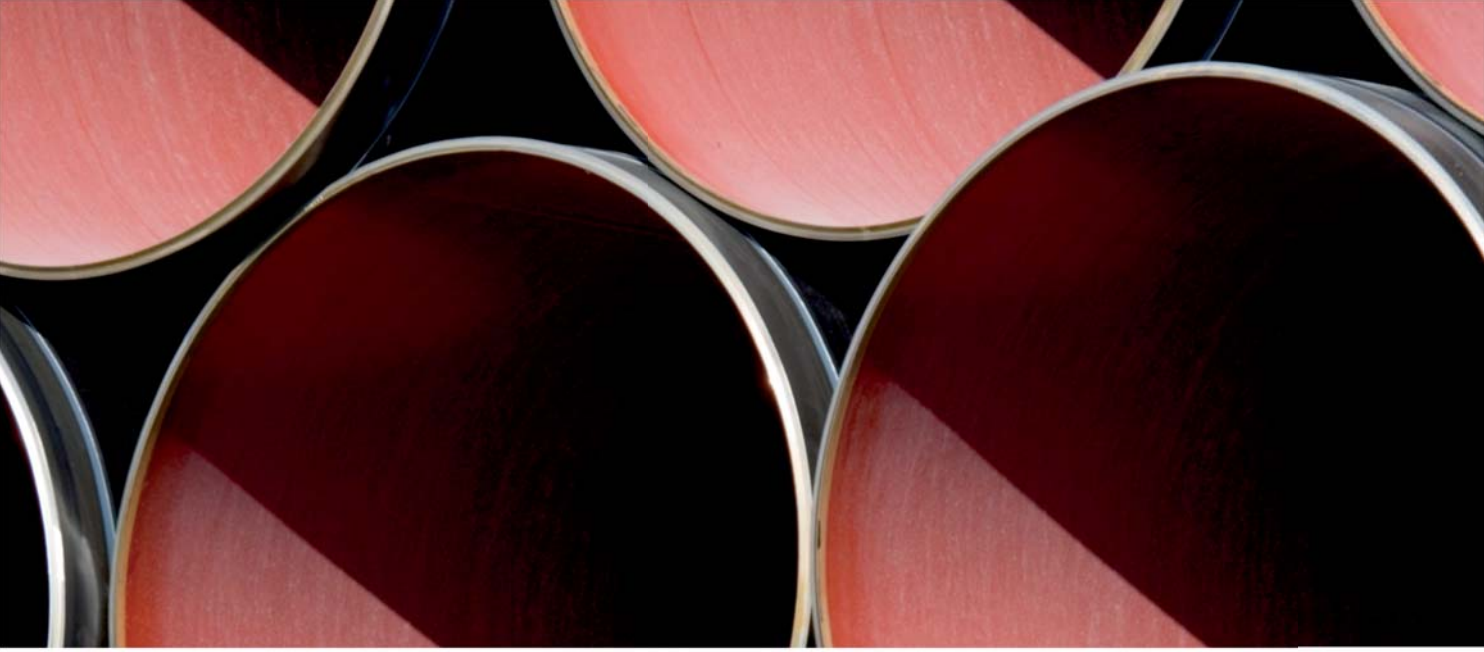
Two-run technique example of Charpy values as welded in API-5L X-80 steel

Hobart SWX 135 is a flux designed for multi-wire welding of spiral pipes.

SWX 135 with wire electrode	YS MPa	TS MPa	Elongation (%)	Charpy V-notch J all weld metal			
				-20°C	-30°C	-40°C	-50°C
SDX S2	430	520	27	110	90	75	40
SDX S2Si-EM12K	410	500	27	150	130	90	55
SDX S2Mo-EA2	510	590	23	90	70	45	30

Mechanical properties of all weld metal (typical values)

Moisture-proof packaging is a standard feature for Hobart fluxes to ensure that they are kept perfectly dry. Packaging is either in 25 kg (55 lb) bags with EAE (Excess Air Evacuation) or in Hobart DoubleBag™ for up to 1000 kg (2200 lb).



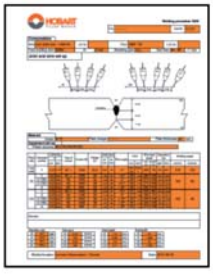
The pipe welding center

has equipment to weld with up to five SubArc electrodes plus GMAW tack welding. The center is dedicated to support the pipe mill industry.

To support an industry where production should run around the clock without interruptions, it's neccessary to have the possibility to run off-line tests. It means that improving productivity, solving weld defect issues or developing new welding procedures can be worked on without interfering with production.

In-house fully equipped chemical and mechanical laboratories are used for evaluation of results.

For pipe laying, SubArc double jointing operations tests can be performed in the head & tailstock positioner using single or multi-wire set-up.



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For more information please contact us at:

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