

Hot Tapping, Plugging & Integrity Monitoring Access System

Engineered solutions for live-line integrity management across pressurized pipeline and vessel infrastructure



1. Overview

Gloazure provides an integrated access and integrity solution for pressurized pipelines and vessels, enabling **safe intervention, controlled plugging, and long-term corrosion monitoring without shutdown.**

The system architecture is designed to support the full lifecycle of integrity management, from initial access creation to repeated monitoring activities under pressure.

2. Hot Tapping System

The **Gloazure Hot Tapping System** is used to create access points on in-service pipelines or vessels for monitoring, maintenance, or future connections.

Key Characteristics

Designed for live-line hot tapping

Compatible with **pre-welded access fittings**

Manual and electric-powered machine options

Controlled cutting with **slug retention** to prevent debris ingress

Suitable for **high-pressure applications**

Supplied as a complete, portable field kit

Hot tapping operations are performed following verification of weld integrity and pressure testing of the access fitting, ensuring safe and reliable access creation.

3. Post Hot Tapping Operations - Plugging & Retrieval

Following completion of hot tapping, the access fitting can be utilized for **solid plugging** or installation of **corrosion monitoring assemblies**, all performed while the pipeline remains pressurized.

These operations are executed using the **Gloazure Retriever Tool**, which is fully compatible with the hot tapping and access fitting system

4. Solid Plug Installation

Solid plugs can be installed through the access fitting under pressure

Plugging is performed using the Gloazure Retriever Tool

Enables secure isolation or permanent sealing of the access point when required

No line shutdown or depressurization is necessary

This provides operational flexibility for both temporary and permanent access management.

5. Probe and Coupon Assembly Handling

The Gloazure Retriever Tool is specifically designed for **easy installation and retrieval** of corrosion monitoring devices, including:

ER and LPR corrosion probes

Coupon holders and coupon assemblies

Advantages

Smooth insertion and removal under pressure
Reduced handling complexity
Shorter operation time
Improved safety during live-line operations
Suitable for frequent monitoring and maintenance activities

6. Patented Retriever Tool Design

The retriever tool incorporates a **patented mechanism** that significantly simplifies the installation and removal of probe and coupon assemblies compared to conventional retrieval systems.

Patented Design Benefits

Enhanced operational safety
Improved repeatability and reliability
Reduced dependency on operator skill
Optimized for long-term monitoring programs
This patented feature represents a key technical differentiation of the Gloazure system.

7. Integrated Monitoring Workflow

Gloazure solutions support a structured integrity workflow:

Access Creation

Hot tapping on live pipelines or vessels

Access Control

Solid plug installation when isolation or sealing is required

Monitoring Installation

Installation of probes and coupon assemblies using the retriever tool

Ongoing Monitoring & Maintenance

Periodic retrieval and reinstallation under pressure

Integrity Management (Optional)

Integration with corrosion monitoring systems and dashboards

Data trending, reporting, and integrity assessment

This workflow enables continuous visibility of asset condition while minimizing operational disruption.

8. Integrity-Focused System Philosophy

By integrating hot tapping, plugging, retrieval, and monitoring into a single system architecture, Gloazure enables operators to:

Maintain production continuity

Reduce intervention risk

Establish corrosion baselines

Support long-term asset integrity strategies

9. Positioning Statement

“Gloazure delivers engineered access solutions that extend beyond hot tapping, providing a controlled pathway to plugging, retrieval, and continuous integrity monitoring through patented technology.”

10. References

Gloazure hot tapping systems and services have been applied across a wide range of international oil & gas, petrochemical, and industrial projects.



GENERAL

THE GLOAZURE HOT TAP TOOL IS USED TO CREATE A HOLE IN AN ALREADY INSTALLED PIPELINE OR TANK IN ORDER TO INSTALL THE GLOAZURE ACCESS FITTING SYSTEM WITHOUT SHUTDOWN, THEREBY PREVENTING PRODUCT LOSS AND SAVING TIME.

THE GLOAZURE HOT TAP TOOL IS DESIGNED TO ENSURE SAFE OPERATION AND RELIABLE FIELD PERFORMANCE.

THE SELECTED ACCESS FITTING IS WELDED ONTO THE PIPELINE OR VESSEL. THE WELD INTEGRITY MUST BE VERIFIED USING GLOAZURE HYDROSTATIC TEST KITS BEFORE INSERTING THE CUTTER INTO THE ACCESS FITTING BODY.

THE CUTTER SHAFT IS ROTATED CLOCKWISE TO CREATE A HOLE MATCHING THE ACCESS FITTING BODY BORE SIZE (35 MM DIAMETER). OPERATION OF THE HOT TAP TOOL CAN BE PERFORMED MANUALLY OR BY USING A LOW-RPM POWERED TOOL.

THERE ARE THREE (3) TYPES OF CUTTERS AVAILABLE:

- SQUARE MILL CUTTER FOR SPOT-FACING THE TREPPANNING AREA
- 4-TOOTH CUTTER, RECOMMENDED FOR WALL THICKNESSES GREATER THAN 5/16 IN. (7.94 MM)
UP TO 1.5 IN. (38.1 MM)
- 6-TOOTH CUTTER, RECOMMENDED FOR THINNER PIPE WALLS UP TO 5/16 IN.

TYPICAL OPERATION TIME IS APPROXIMATELY 20 MINUTES, DEPENDING ON MATERIAL AND WALL THICKNESS.

AFTER THE HOLE IS COMPLETELY CUT, THE PLUG ASSEMBLY TOGETHER WITH ALL CUT SLUGS MUST BE REMOVED USING THE GLOAZURE RETRIEVER TOOL, WHICH IS AN INTEGRAL PART OF THE HOT TAP TOOL ASSEMBLY.

A MAGNETIC SWAB IS USED TO REMOVE CUTTING DEBRIS AND CLEAN THE HOLE. THIS PROCESS DOES NOT INTERFERE WITH SUBSEQUENT OPERATION OF THE RETRIEVER TOOL.

HOT TAPPING CAN BE PERFORMED AT PRESSURES UP TO 3,600 PSI (24.8 MPA) AND TEMPERATURES UP TO 300 °F (148 °C).

IMPORTANT: THE HOT TAP PLUG MUST ONLY BE REMOVED USING THE GLOAZURE RETRIEVER TOOL AND SERVICE VALVE WHILE THE PIPELINE IS UNDER PRESSURE.

GLOAZURE HOT TAP KITS INCLUDE ALL NECESSARY EQUIPMENT TO PERFORM PROPER HOT TAPPING OPERATIONS, INCLUDING MAGNETIC SWAB, CHIP REMOVER, HYDROSTATIC TEST ASSEMBLIES, AND SPARE PARTS. ALL COMPONENTS ARE SUPPLIED IN A HEAVY-DUTY SERVICE BOX.

A. MANUAL HOT TAP MACHINE

Item Number	Description
1	Hot Tap Kit
2	Feed Screw Assembly
3	Hydrostatic Tester Assembly
4	Magnetic Swab Assembly
5	Chip Remover Assembly
6	Cutter, 6 Tooth
7	Cutter, 4 Tooth
8	Cutter, Square End Mill
9	Plug Assembly

HOT TAPPING TOOL

GLOAZURE

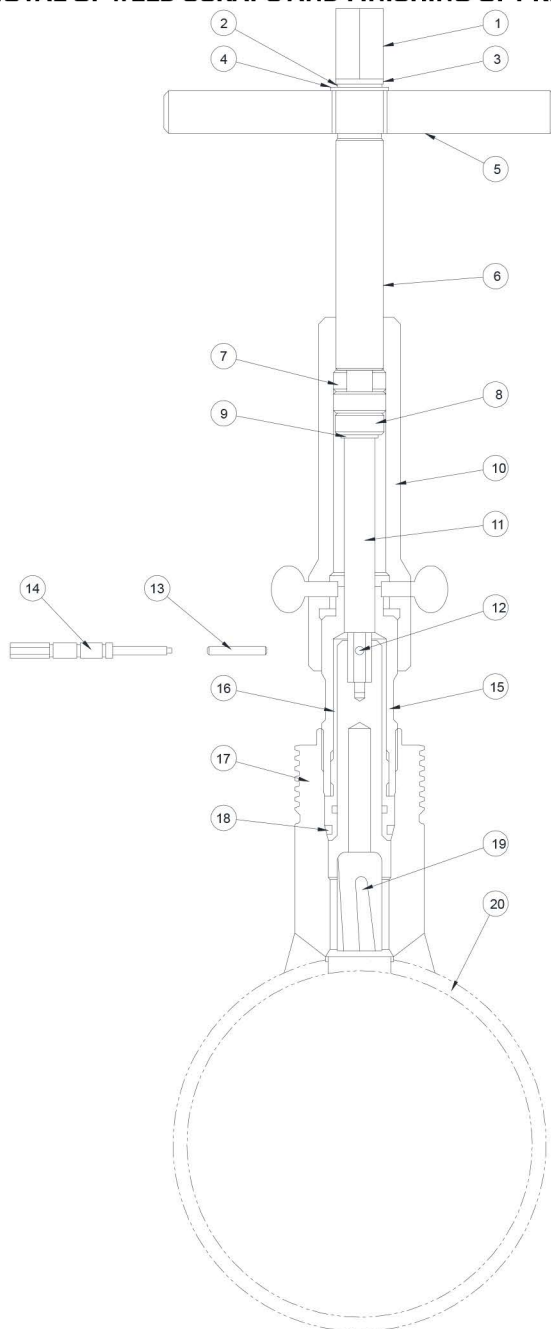
Complete Hot Tap Kit with Carrying Case

HOT TAP KIT WEIGHT: : APPROX.. 25 KG

HOT TAP VOLUME: : APPROX.. 0.05 CBM



THE HOT TAP CUTTER MAKES A HOLE THAT WILL GET FREE PASSAGE INTO THE LINE FOR ANY GLOAZURE TWO INCH HIGH PRESSURE SYSTEM WHICH IS COMPATIBLE TOOLS.. THE CUTTER IS DESIGNED TO RETAIN THE SLUG CUT FROM THE PIPE WALL TO REMOVE CUTTING METAL DEBRIS AND NOT TO GET CUTTING CHIPS TO DROP INTO PIPE. INSIDE TWO DIFFERENT KIND OF CUTTERS (6 TOOTH AND 4 TOOTH) ARE PROVIDED TO USE PROPERLY FOR PIPE THICKNESS IN HOT TAPPING WORK. BEFORE MAKE HOLE, THE SQUARE END MILL IS FOR PREPARATION OF THE PIPE WALL AND FOR REMOVAL OF WELD SCRAPS AND FINISHING OF PRE-CUT HOLES.



Item No.	Description
1	DRIVE NUT
2	SPRING
3	WASHER
4	BUSHING
5	HANDLE
6	FEED SCREW
7	BEARING
8	SPACER
9	SNAP RING
10	BODY
11	DRIVE SHAFT
12	SPRING PIN HOLE
13	SPRING PIN
14	DRIFT PIN
15	PLUG
16	GLAND
17	ACCESSSS FITTING
18	PRIMARY PACKING
19	CUTTER
20	PIPE

B. ELECTRIC POWERED HOT TAP MACHINE

ELECTRIC HOT TAPPING MACHINE WHICH IS DEDICATED FOR ELECTRIC POWERED TOOL

STORAGE CASE SIZE: 635 × 395 × 165 MM (STANDARD TYPE)

TOTAL WEIGHT: 34 KG (STANDARD TYPE)

SPECIFICATIONS

- POWER: 220V / 610W
- LENGTH: 550 MM (STANDARD TYPE)
- STROKE: 180 MM (STANDARD TYPE)
- FEED RATE: 2.67 MM PER HANDLE ROTATION

INCLUDED COMPONENTS

- MACHINE
- DRILL SET
- ADAPTER SET
- MOTOR WRENCH
- CARRYING CASE

APPLICABLE PIPE SIZES

- 15A-50A



GLOAZURE

Client



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