Hardened aerospace grade stainless steel is used to produce all of ICL's die sets. The 3mm to 19mm dies are used primarily for KBr pellets for transmission analysis by IR spectroscopy, while the larger dies are most commonly used for producing briquettes for XRF spectroscopy. The 13mm Macro-Micro die is chosen by most spectroscopists for KBr pellets, and it is available with **paper inserts** with a variety of small apertures (1.5, 3, 5, & 11mm) that enable the user to make micro-pellets with a 13mm die set and also provide a useful frame for mounting and storing the pellets. For paper inserts, click here.

All ICL dies have an upper and lower stainless steel section for ease of disassembly and they are sealed with viton seals. For ease of use, the weight was reduced in all die sets in the 13mm to 40mm range by adding an outer shield of aluminum. This feature makes them much easier to handle than 2 piece dies made completely from stainless steel due to their lighter weight, but without sacrificing strength or durability. The dies can be evacuated with a vacuum pump to reduce the moisture in the sample. 13mm and 20mm dies are typically used with 12 to 20 ton presses, while the larger size dies are used with 20 to 40 ton presses and are most commonly used for briquetting samples for XRF analysis.

To enable preparation of the finest quality pellets and briquettes, anvils are optically polished to a mirror finish and are free from scratches or digs. All die sets in the 13mm to 40mm size range are available with optional extremely hard tungsten carbide polished anvils for use with abrasive samples.

Water jacketed dies can be used for heating and cooling solid samples, and they are available in 5mm to 40mm diameter sizes.

Features:

- Aerospace Grade Hardened Stainless Steel
- Optically Polished Anvils
- Evacuable

Specifications for ICL Die Sets

Die Size	3mm	5mm	10mm	13mm	16mm	19mm	20mm	25mm	32mm	35mm	40mm	45mm
Part No.	0012-6646	0012-6647	0012-6648	0012-2477	0012-6649	0012-8777	0012-5223	0012-6653	0012-6633	0012-6634	0012-6635	0012-8990
Total Height[1]	1.5" 38.1mm	2.75" 70mm	2.75" 70mm	2.83" 72mm	2.75" 70mm	2.85" 72mm	4.265" 108.3mm	4.75" 120.7mm	4.75" 120.7mm	4.75" 120.7mm	4.75" 120.7mm	5.85" 148.7mm
Plunger Height	N/A	1.37" 34.8mm	1.37" 34.8mm	1.37" 34.8mm	1.37" 34.8mm	1.33" 33.8mm	2.24" 57mm	2.24" 57mm	2.24" 57mm	2.24" 57mm	2.24" 57mm	2.76" 70mm
Base Diameter	1.12" 28.5 mm	1.97" 50mm	1.97" 50mm	2.0" 50.8mm	1.97" 50mm	1.97" 50mm	3.54" 90mm	3.54" 90mm	3.54" 90mm	3.54" 90mm	3.54" 90mm	3.54" 90mm
Single Anvil Height	N/A	0.25" 6.35mm	0.25" 6.35mm	0.25" 6.35mm	0.25" 6.35mm	0.27" 6.85mm	0.375" 9.5mm	0.375" 9.5mm	0.375" 9.5mm	0.375" 9.5mm	0.375" 9.5mm	0.47" 12mm
Vacuum Tube Diameter	0.25" 6.35mm	0.25" 6.35mm	0.25" 6.35mm	0.25" 6.35mm	0.25" 6.35mm	0.25" 6.35mm	0.25" 6.35mm	0.25" 6.35mm	0.25" 6.35mm	0.25" 6.35mm	0.25" 6.35mm	0.25" 6.35mm
Load Limits	1/2 ton	2 ton	7 ton	10 ton	10 ton	10 ton	30 ton	30 ton	30 ton	30 ton	30 ton	35 ton

[1]Add sample thickness prior to application of force for total height in confined area